Section 1. Identification

GHS product identifier
Regular Unleaded petrol with 10% ethanol

Other means of identification
E10, E10M

Product code
0000002889

SDS no.
0000002889

Relevant identified uses of the substance or mixture and uses advised against

Use of the substance/mixture
Use only as a motor fuel for spark ignition engines. NOT for aviation use. Should NOT be used as a solvent nor cleaning agent.

Manufacturer
BP Australia Pty Ltd
Level 17, 717 Bourke Street
Docklands, Victoria 3008
ABN 53 004 085 616

www.bp.com.au

Supplier

EMERGENCY TELEPHONE NUMBER
1800 638 556

Section 2. Hazard(s) identification

Classification of the substance or mixture
FLAMMABLE LIQUIDS - Category 1
SKIN IRRITATION - Category 2
EYE IRRITATION - Category 2A
GERM CELL MUTAGENICITY - Category 1B
CARCINOGENICITY - Category 1B
TOXIC TO REPRODUCTION (Unborn child) - Category 2
SPECIFIC TARGET ORGAN TOXICITY (SINGLE EXPOSURE) (Narcotic effects) - Category 3
ASPIRATION HAZARD - Category 1

GHS label elements

Hazard pictograms

Signal word
DANGER

Hazard statements
H224 - Extremely flammable liquid and vapour.
H319 - Causes serious eye irritation.
H315 - Causes skin irritation.
H340 - May cause genetic defects.
H350 - May cause cancer.
H361 - Suspected of damaging the unborn child.
H304 - May be fatal if swallowed and enters airways.
H336 - May cause drowsiness or dizziness.

Precautionary statements

General
P103 - Read label before use.
P102 - Keep out of reach of children.
P101 - If medical advice is needed, have product container or label at hand.
Section 2. Hazard(s) identification

Prevention
- P202 - Do not handle until all safety precautions have been read and understood.
- P261 - Avoid breathing vapour.
- P280 - Wear protective gloves. Wear eye or face protection. Wear protective clothing.
- P210 - Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
- P240 - Ground/bond container and receiving equipment.
- P233 - Keep container tightly closed.
- P241 - Use explosion-proof electrical, ventilating, lighting and all material-handling equipment.
- P273 - Avoid release to the environment.

Response
- P304 + P340 - IF INHALED: Remove person to fresh air and keep comfortable for breathing.
- P301 + P310 + P331 - IF IN EYES: Remove contact lenses and rinse with water for 15 minutes.
- P305 + P351 + P361 + P353 - IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water or shower.

Storage
- P403 + P233 - Store in a well-ventilated place. Keep container tightly closed.
- P235 - Keep cool.
- P405 - Store locked up.

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

Supplemental label elements
- Not applicable.

Other hazards which do not result in classification
- Contains Benzene. Prolonged or repeated exposure to benzene can cause anaemia and other blood diseases, including leukaemia.

Section 3. Composition and ingredient information

Substance/mixture
- Mixture

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

<table>
<thead>
<tr>
<th>Ingredient name</th>
<th>% (w/w)</th>
<th>CAS number</th>
</tr>
</thead>
<tbody>
<tr>
<td>Gasoline</td>
<td>&gt;90</td>
<td>86290-81-5</td>
</tr>
<tr>
<td>Ethanol</td>
<td>&lt;10</td>
<td>64-17-5</td>
</tr>
<tr>
<td>Contains:</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Benzene</td>
<td>&lt;1</td>
<td>71-43-2</td>
</tr>
<tr>
<td>tert-butyl methyl ether (MTBE)</td>
<td>&lt;1</td>
<td>1634-04-4</td>
</tr>
<tr>
<td>2-methylpropan-2-ol</td>
<td>&lt;1</td>
<td>75-65-0</td>
</tr>
<tr>
<td>diisopropyl ether</td>
<td>&lt;1</td>
<td>108-20-3</td>
</tr>
<tr>
<td>Polycyclic aromatic hydrocarbons (PAHs)</td>
<td>&lt;1 mixture</td>
<td></td>
</tr>
</tbody>
</table>

There are no additional ingredients present which, within the current knowledge of the supplier and in the concentrations applicable, are classified as hazardous to health or the environment and hence require reporting in this section.

Occupational exposure limits, if available, are listed in Section 8.

Section 4. First-aid measures

Description of necessary first aid measures

Eye contact
- In case of contact, immediately flush eyes with plenty of water for at least 15 minutes. Check for and remove any contact lenses. Get medical attention if irritation occurs.
Section 4. First-aid measures

**Inhalation**

If inhaled, remove to fresh air. Get medical attention.

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.

**Skin contact**

In case of contact, immediately flush skin with plenty of water for at least 15 minutes while removing contaminated clothing and shoes. Clean shoes thoroughly before reuse. 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. Get medical attention.

**Ingestion**

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. Get medical attention immediately.

Most important symptoms/effects, acute and delayed

See Section 11 for more detailed information on health effects and symptoms.

**Indication of immediate medical attention and special treatment needed, if necessary**

**Notes to physician**

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.

**Specific treatments**

No specific treatment.

**Protection of first-aiders**

No action shall be taken involving any personal risk or without suitable training. If it is suspected that fumes are still present, the rescuer should wear an appropriate mask or self-contained breathing apparatus. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation. Wash contaminated clothing thoroughly with water before removing it, or wear gloves.

Section 5. Fire-fighting measures

**Extinguishing media**

**Suitable extinguishing media**

In case of fire, use water fog, foam, dry chemical or carbon dioxide extinguisher or spray.

**Unsuitable extinguishing media**

Do not use water jet.

**Specific hazards arising from the chemical**

Extremely flammable liquid and vapour. Fire water contaminated with this material must be contained and prevented from being discharged to any waterway, sewer or drain. 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. Liquid will float and may reignite on surface of water.

**Hazardous thermal decomposition products**

Combustion products may include the following:
- carbon dioxide
- carbon monoxide
- other hazardous substances.

**Special protective actions for fire-fighters**

Promptly isolate the scene by removing all persons from the vicinity of the incident if there is a fire. No action shall be taken involving any personal risk or without suitable training. Move containers from fire area if this can be done without risk. Use water spray to keep fire-exposed containers cool.

**Special protective equipment for fire-fighters**

Fire-fighters should wear positive pressure self-contained breathing apparatus (SCBA) and full turnout gear.
Section 5. Fire-fighting measures

Hazchem code 3YE

Section 6. Accidental release measures

Personal precautions, protective equipment and emergency procedures

For non-emergency personnel
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. No flares, smoking or flames in hazard area. Avoid breathing vapour or mist. Provide adequate ventilation. Put on appropriate personal protective equipment. Floors may be slippery; use care to avoid falling. Eliminate all ignition sources.

For emergency responders
Entry into a confined space or poorly ventilated area contaminated with vapour, mist or fume is extremely hazardous without the correct respiratory protective equipment and a safe system of work. Wear self-contained breathing apparatus. Wear a suitable chemical protective suit. Chemical resistant boots. See also the information in "For non-emergency personnel".

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. In case of small spillages in closed waters (i.e. ports), contain product with floating barriers or other equipment. Collect spilled product by absorbing with specific floating absorbents. If possible, large spillages in open waters should be contained with floating barriers or other mechanical means. If this is not possible, control the spreading of the spillage, and collect the product by skimming or other suitable mechanical means. The use of dispersants should be advised by an expert, and, if required, approved by local authorities. Collect recovered product and other contaminated materials in suitable tanks or containers for recycle, recovery or safe disposal.

Methods and material for containment and cleaning up

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. The method and equipment used must be in conformance with appropriate regulations and industry practice on explosive atmospheres.

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. Dike spill area and do not allow product to reach sewage system and surface or ground water. 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. Contaminated absorbent material may pose the same hazard as the spilt product. The method and equipment used must be in conformance with appropriate regulations and industry practice on explosive atmospheres. Dispose of via a licensed waste disposal contractor.

Section 7. Handling and storage

Precautions for safe handling

Protective measures
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.

Put on appropriate personal protective equipment (see Section 8). Do not get in eyes or on skin or clothing. Avoid breathing vapour or mist. Use only with adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Take
Section 7. Handling and storage

Advice on general occupational hygiene

Eating, drinking and smoking should be prohibited in areas where this material is handled, stored and processed. Wash thoroughly after handling. Remove contaminated clothing and protective equipment before entering eating areas. See also Section 8 for additional information on hygiene measures.

Conditions for safe storage, including any incompatibilities

Store in accordance with local regulations. Store in a segregated and approved area. Store in original container protected from direct sunlight in a dry, cool and well-ventilated area, away from incompatible materials (see Section 10) and food and drink. Store locked up. Eliminate all ignition sources. Separate from oxidising materials. Keep container tightly closed and sealed until ready for use. Store and use only in equipment/containers designed for use with this product. Containers that have been opened must be carefully resealed and kept upright to prevent leakage. Do not store in unlabelled containers. Use appropriate containment to avoid environmental contamination.

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. Do not enter storage tanks. If entry to vessels is necessary, follow permit to work procedures. 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. Entry into a confined space or poorly ventilated area contaminated with vapour, mist or fume is extremely hazardous without the correct respiratory protective equipment and a safe system of work.

Section 8. Exposure controls and personal protection

Control parameters

Occupational exposure limits

<table>
<thead>
<tr>
<th>Product name</th>
<th>Regular Unleaded petrol with 10% ethanol</th>
<th>Product code</th>
<th>0000002889</th>
<th>Page: 5/18</th>
</tr>
</thead>
<tbody>
<tr>
<td>Version</td>
<td>1</td>
<td>Date of issue</td>
<td>28 September 2015</td>
<td>Format Australia (Australia)</td>
</tr>
</tbody>
</table>
## Section 8. Exposure controls and personal protection

<table>
<thead>
<tr>
<th>Ingredient name</th>
<th>Exposure limits</th>
</tr>
</thead>
<tbody>
<tr>
<td>Polycyclic aromatic hydrocarbons (PAHs)</td>
<td>Safe Work Australia (Australia).&lt;br&gt; TWA: 0.2 mg/m³ 8 hours.</td>
</tr>
<tr>
<td>Benzene</td>
<td>Safe Work Australia (Australia).&lt;br&gt; TWA: 3.2 mg/m³ 8 hours. Issued/Revised: 4/2003&lt;br&gt; TWA: 1 ppm 8 hours. Issued/Revised: 4/2003</td>
</tr>
</tbody>
</table>

### Appropriate engineering controls
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. Provide exhaust ventilation or other engineering controls to keep the relevant environmental levels below their exposure limits.
Section 8. Exposure controls and personal protection

Environmental exposure controls

Airborne concentrations below their respective occupational exposure limits. 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.

Emissions from ventilation or work process equipment should be checked to ensure they comply with the requirements of environmental protection legislation. In some cases, fume scrubbers, filters or engineering modifications to the process equipment will be necessary to reduce emissions to acceptable levels.

Individual protection measures

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. Appropriate techniques should be used to remove potentially contaminated clothing. Wash contaminated clothing before reusing. Ensure that eyewash stations and safety showers are close to the workstation location.

Eye/face protection

Recommended: splash goggles

Skin protection

Hand protection

Wear chemical resistant gloves.

Do not re-use gloves. Protective gloves must give suitable protection against mechanical risks (i.e. abrasion, blade cut and puncture). Protective gloves will deteriorate over time due to physical and chemical damage. Inspect and replace gloves on a regular basis. The frequency of replacement will depend upon the circumstances of use.

Recommended: Gloves made from fluoroelastomer resistant to hydrocarbons and a wide range of chemicals. Nitrile gloves.

Skin protection

Use of protective clothing is good industrial practice.

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.

Wear suitable protective clothing.

Footwear highly resistant to chemicals.

When there is a risk of ignition from static electricity, wear anti-static protective clothing. For greatest effectiveness against static electricity, overalls, boots and gloves should all be anti-static.

When there is a risk of ignition wear inherently fire resistant protective clothes and gloves.

Work clothing / overalls should be laundered on a regular basis. Laundering of contaminated work clothing should only be done by professional cleaners who have been told about the hazards of the contamination. Always keep contaminated work clothing away from uncontaminated work clothing and uncontaminated personal clothes.

When the risk of skin exposure is high (from experience this could apply to the following tasks: cleaning work, maintenance and service, filling and transfer, taking samples and cleaning up spillages) then a chemical protective suit and boots will be required.

Personal protective equipment for the body should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product.

Recommended: overall

Other skin protection

Appropriate footwear and any additional skin protection measures should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product. Recommended: nitrile rubber
Section 8. Exposure controls and personal protection

**Respiratory protection**
Use with adequate ventilation.
In case of insufficient ventilation, wear suitable respiratory equipment.
If there is a requirement for the use of a respiratory protective device, but the use of breathing apparatus (independent of ambient atmosphere) is not required, then a suitable filtering device must be worn.
The filter class must be suitable for the maximum contaminant concentration (gas/ vapour/aerosol/particulates) that may arise when handling the product.
The correct choice of respiratory protection depends upon the chemicals being handled, the conditions of work and use, and the condition of the respiratory equipment. Safety procedures should be developed for each intended application.
Respiratory protection equipment should therefore be chosen in consultation with the supplier/manufacturer and with a full assessment of the working conditions.
Recommended: full-face mask

**Refer to standards:**
Respiratory protection: AS/NZS 1715 and AS/NZS 1716
Gloves: AS/NZS 2161.1
Eye protection: AS/NZS 1336 and AS/NZS 1337

Section 9. Physical and chemical properties

**Appearance**

<table>
<thead>
<tr>
<th>Physical state</th>
<th>Liquid. Clear and Bright</th>
</tr>
</thead>
<tbody>
<tr>
<td>Colour</td>
<td>Pale Yellow.to Orange/Red.</td>
</tr>
<tr>
<td>Odour</td>
<td>Hydrocarbon. [Strong]</td>
</tr>
<tr>
<td>Odour threshold</td>
<td>Not available.</td>
</tr>
<tr>
<td>pH</td>
<td>Not available.</td>
</tr>
<tr>
<td>Melting point</td>
<td>Not available.</td>
</tr>
<tr>
<td>Boiling point</td>
<td>30 to 210°C (86 to 410°F)</td>
</tr>
<tr>
<td>Flash point</td>
<td>Closed cup: &lt;-40°C (&lt;-40°F) [Pensky-Martens.]</td>
</tr>
<tr>
<td>Evaporation rate</td>
<td>Not available.</td>
</tr>
<tr>
<td>Flammability (solid, gas)</td>
<td>Not applicable. Based on - Physical state</td>
</tr>
<tr>
<td>Lower and upper explosive (flammable) limits</td>
<td>Lower: 1.4% Upper: 7.6%</td>
</tr>
<tr>
<td>Vapour pressure</td>
<td>30.1 to 100.3 kPa (225.6 to 752 mm Hg)</td>
</tr>
<tr>
<td>Vapour density</td>
<td>Not available.</td>
</tr>
<tr>
<td>Relative density</td>
<td>710 to 750 kg/m³ (0.71 to 0.75 g/cm³)</td>
</tr>
<tr>
<td>Solubility</td>
<td>Water soluble.(Moderate.)</td>
</tr>
<tr>
<td>Partition coefficient: n-octanol/water</td>
<td>Not available.</td>
</tr>
<tr>
<td>Auto-ignition temperature</td>
<td>&gt;350°C (&gt;662°F)</td>
</tr>
<tr>
<td>Decomposition temperature</td>
<td>Not available.</td>
</tr>
<tr>
<td>Viscosity</td>
<td>Kinematic: 0.4 to 0.55 mm²/s (0.4 to 0.55 cSt) at 40°C</td>
</tr>
<tr>
<td>Remarks</td>
<td>Reid vapor pressure (RVP): 55 to 100 kPa (40 °C )</td>
</tr>
</tbody>
</table>

Section 10. Stability and reactivity

**Reactivity**
No specific test data available for this product. Refer to Conditions to avoid and Incompatible materials for additional information.

**Chemical stability**
The product is stable.

**Possibility of hazardous reactions**
Under normal conditions of storage and use, hazardous reactions will not occur.
Under normal conditions of storage and use, hazardous polymerisation will not occur.

**Conditions to avoid**
Avoid all possible sources of ignition (spark or flame). Avoid excessive heat.
Section 10. Stability and reactivity

**Incompatible materials**
Reactive or incompatible with the following materials: oxidising materials.

**Hazardous decomposition products**
Under normal conditions of storage and use, hazardous decomposition products should not be produced.

Section 11. Toxicological information

**Information on toxicological effects**

**Acute toxicity**

<table>
<thead>
<tr>
<th>Product/ingredient name</th>
<th>Result</th>
<th>Species</th>
<th>Dose</th>
<th>Exposure</th>
<th>Expiration</th>
</tr>
</thead>
<tbody>
<tr>
<td>Gasoline</td>
<td>LC50 Inhalation Vapour</td>
<td>Rat</td>
<td>&gt;7630 mg/m³</td>
<td>4 hours</td>
<td>Nominal</td>
</tr>
<tr>
<td></td>
<td>LC50 Inhalation Vapour</td>
<td>Rat</td>
<td>&gt;5610 mg/m³</td>
<td>4 hours</td>
<td>analytical</td>
</tr>
<tr>
<td></td>
<td>LD50 Dermal</td>
<td>Rabbit</td>
<td>&gt;2000 mg/kg</td>
<td>-</td>
<td></td>
</tr>
<tr>
<td></td>
<td>LD50 Oral</td>
<td>Rat</td>
<td>&gt;5000 mg/kg</td>
<td>-</td>
<td></td>
</tr>
<tr>
<td>Ethanol</td>
<td>LC50 Inhalation Vapour</td>
<td>Rat</td>
<td>124.7 mg/l</td>
<td>4 hours</td>
<td></td>
</tr>
<tr>
<td></td>
<td>LC50 Inhalation Vapour</td>
<td>Rat</td>
<td>116.9 mg/l</td>
<td>4 hours</td>
<td></td>
</tr>
<tr>
<td></td>
<td>LC50 Inhalation Vapour</td>
<td>Rat</td>
<td>133.8 mg/l</td>
<td>4 hours</td>
<td></td>
</tr>
<tr>
<td></td>
<td>LD50 Oral</td>
<td>Rat</td>
<td>10470 mg/kg</td>
<td>-</td>
<td></td>
</tr>
<tr>
<td>diisopropyl ether</td>
<td>LC50 Inhalation Vapour</td>
<td>Rat</td>
<td>40.5 mg/m³</td>
<td>1 hours</td>
<td></td>
</tr>
<tr>
<td></td>
<td>LD50 Dermal</td>
<td>Rabbit</td>
<td>2000 mg/kg</td>
<td>-</td>
<td></td>
</tr>
<tr>
<td></td>
<td>LD50 Oral</td>
<td>Rat</td>
<td>8470 mg/kg</td>
<td>-</td>
<td></td>
</tr>
<tr>
<td>tert-butyl methyl ether (MTBE)</td>
<td>LC50 Inhalation Vapour</td>
<td>Rat</td>
<td>85 mg/l</td>
<td>4 hours</td>
<td></td>
</tr>
<tr>
<td></td>
<td>LD50 Dermal</td>
<td>Rat</td>
<td>&gt;2000 mg/kg</td>
<td>-</td>
<td></td>
</tr>
<tr>
<td></td>
<td>LD50 Oral</td>
<td>Rat</td>
<td>&gt;2000 mg/kg</td>
<td>-</td>
<td></td>
</tr>
<tr>
<td>2-methylpropan-2-ol</td>
<td>LD50 Oral</td>
<td>Rabbit</td>
<td>3559 mg/kg</td>
<td>-</td>
<td></td>
</tr>
<tr>
<td></td>
<td>LD50 Oral</td>
<td>Rat</td>
<td>2743 mg/kg</td>
<td>-</td>
<td></td>
</tr>
</tbody>
</table>

**Irritation/Corrosion**

<table>
<thead>
<tr>
<th>Product/ingredient name</th>
<th>Result</th>
<th>Species</th>
<th>Score</th>
<th>Exposure</th>
<th>Observation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Gasoline</td>
<td>Skin - Irritant</td>
<td>Rabbit</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td></td>
<td>Eyes - Non-irritating to the eyes.</td>
<td>Rabbit</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Ethanol</td>
<td>Skin - Non-irritant to skin.</td>
<td>Rabbit</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td></td>
<td>Eyes - Cornea opacity</td>
<td>Rabbit</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td></td>
<td>Eyes - Iris lesion</td>
<td>Rabbit</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td></td>
<td>Eyes - Irritant</td>
<td>Rabbit</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>tert-butyl methyl ether (MTBE)</td>
<td>Skin - Irritation</td>
<td>Rabbit</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td></td>
<td>Eyes - Non-irritating to the eyes.</td>
<td>Rabbit</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
</tbody>
</table>

**Skin**
Causes skin irritation.

**Eyes**
Causes serious eye irritation.

**Mutagenicity**

<table>
<thead>
<tr>
<th>Product/ingredient name</th>
<th>Test</th>
<th>Experiment</th>
<th>Result</th>
</tr>
</thead>
<tbody>
<tr>
<td>Gasoline</td>
<td>Equivalent to OECD 476</td>
<td>Experiment: In vitro</td>
<td>Negative</td>
</tr>
<tr>
<td></td>
<td>Equivalent to OECD 471</td>
<td>Experiment: In vitro</td>
<td>Negative</td>
</tr>
<tr>
<td></td>
<td>EPA OPPTS 870.5395</td>
<td>Experiment: In vivo, Subject: Unspecified, Cell: Germ</td>
<td>Negative</td>
</tr>
<tr>
<td></td>
<td>Equivalent to OECD 475</td>
<td>Experiment: In vivo, Subject: Mammal - species unspecified</td>
<td>Negative</td>
</tr>
</tbody>
</table>
### Section 11. Toxicological information

#### Carcinogenicity

<table>
<thead>
<tr>
<th>Product/ingredient name</th>
<th>Result</th>
<th>Species</th>
<th>Dose</th>
<th>Exposure</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ethanol</td>
<td>Negative - Inhalation - Unspecified</td>
<td>Rat</td>
<td>-</td>
<td>113 weeks</td>
</tr>
<tr>
<td>Ethanol</td>
<td>Negative - Dermal - Unspecified</td>
<td>Mouse</td>
<td>-</td>
<td>102 weeks</td>
</tr>
<tr>
<td>tert-butyl methyl ether (MTBE)</td>
<td>Positive - Oral - Unspecified</td>
<td>Mouse</td>
<td>-</td>
<td>105 weeks</td>
</tr>
<tr>
<td>tert-butyl methyl ether (MTBE)</td>
<td>Negative - Oral - Unspecified</td>
<td>Rat</td>
<td>-</td>
<td>104 weeks</td>
</tr>
</tbody>
</table>

**Conclusion/Summary**

May cause genetic defects.

### Reproductive toxicity

<table>
<thead>
<tr>
<th>Product/ingredient name</th>
<th>Maternal toxicity</th>
<th>Fertility</th>
<th>Developmental toxicity</th>
<th>Species</th>
<th>Dose</th>
<th>Exposure</th>
</tr>
</thead>
<tbody>
<tr>
<td>Gasoline</td>
<td>-</td>
<td>Negative</td>
<td>-</td>
<td>Rat</td>
<td>Inhalation</td>
<td>2 generation</td>
</tr>
<tr>
<td>Gasoline</td>
<td>-</td>
<td>-</td>
<td>Negative</td>
<td>Rat</td>
<td>Inhalation</td>
<td>14 days</td>
</tr>
<tr>
<td>Ethanol</td>
<td>-</td>
<td>Positive</td>
<td>-</td>
<td>Oral</td>
<td></td>
<td>2 generation</td>
</tr>
<tr>
<td>tert-butyl methyl ether (MTBE)</td>
<td>-</td>
<td>-</td>
<td>Negative</td>
<td>Rat</td>
<td>Inhalation</td>
<td>18 days</td>
</tr>
<tr>
<td>tert-butyl methyl ether (MTBE)</td>
<td>-</td>
<td>-</td>
<td>Negative</td>
<td>Rat</td>
<td>Inhalation</td>
<td>2 generation</td>
</tr>
</tbody>
</table>

**Conclusion/Summary**

May cause cancer.
Section 11. Toxicological information

- Negative Rat Inhalation 9 days

Specific target organ toxicity (single exposure)

<table>
<thead>
<tr>
<th>Name</th>
<th>Category</th>
<th>Route of exposure</th>
<th>Target organs</th>
</tr>
</thead>
<tbody>
<tr>
<td>Gasoline</td>
<td>Category 3</td>
<td>Not applicable.</td>
<td>Narcotic effects</td>
</tr>
<tr>
<td>diisopropyl ether</td>
<td>Category 3</td>
<td>Not applicable.</td>
<td>Narcotic effects</td>
</tr>
<tr>
<td>tert-butyl methyl ether(MTBE)</td>
<td>Category 3</td>
<td>Not applicable.</td>
<td>Narcotic effects</td>
</tr>
<tr>
<td>Benzene</td>
<td>Category 3</td>
<td>Not applicable.</td>
<td>Respiratory tract irritation and Narcotic effects</td>
</tr>
</tbody>
</table>

Specific target organ toxicity (repeated exposure)

<table>
<thead>
<tr>
<th>Name</th>
<th>Category</th>
<th>Route of exposure</th>
<th>Target organs</th>
</tr>
</thead>
<tbody>
<tr>
<td>Benzene</td>
<td>Category 1</td>
<td>Not determined</td>
<td>blood system</td>
</tr>
</tbody>
</table>

Aspiration hazard

<table>
<thead>
<tr>
<th>Name</th>
<th>Result</th>
</tr>
</thead>
<tbody>
<tr>
<td>Gasoline</td>
<td>ASPIRATION HAZARD - Category 1</td>
</tr>
</tbody>
</table>

Information on the likely routes of exposure

Routes of entry anticipated: Dermal, Inhalation.

Potential acute health effects

Eye contact

Causes serious eye irritation.

Inhalation

Can cause central nervous system (CNS) depression. May cause drowsiness or dizziness.

Skin contact

Causes skin irritation.

Ingestion

Irritating to mouth, throat and stomach. Aspiration hazard if swallowed -- harmful or fatal if liquid is aspirated into lungs.

Symptoms related to the physical, chemical and toxicological characteristics

Eye contact

Adverse symptoms may include the following:
pain or irritation
watering
redness

Inhalation

Adverse symptoms may include the following:
nausea or vomiting
headache
drowsiness/fatigue
dizziness/vertigo
unconsciousness

Skin contact

Adverse symptoms may include the following:
irritation
redness
reduced foetal weight
increase in foetal deaths
skeletal malformations

Ingestion

Adverse symptoms may include the following:
nausea or vomiting
reduced foetal weight
increase in foetal deaths
skeletal malformations

Delayed and immediate effects and also chronic effects from short and long term exposure

Product name: Regular Unleaded petrol with 10% ethanol
Product code: 000002889
Page: 11/18
Version: 1
Date of issue: 28 September 2015
Format: Australia
Language: ENGLISH
Section 11. Toxicological information

<table>
<thead>
<tr>
<th>Eye contact</th>
<th>Vapour, mist or fume may cause eye irritation. Exposure to vapour, mist or fume may cause stinging, redness and watering of the eyes.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Inhalation</td>
<td>Vapour, mist or fume may irritate the nose, mouth and respiratory tract.</td>
</tr>
<tr>
<td>Skin contact</td>
<td>Prolonged or repeated contact can defat the skin and lead to irritation, cracking and/or dermatitis.</td>
</tr>
<tr>
<td>General</td>
<td>Solvent &quot;sniffing&quot; (abuse) or intentional overexposure to vapours can produce serious central nervous system effects, including unconsciousness, and possibly death.</td>
</tr>
<tr>
<td>Carcinogenicity</td>
<td>May cause cancer. Risk of cancer depends on duration and level of exposure.</td>
</tr>
<tr>
<td>Mutagenicity</td>
<td>May cause genetic defects.</td>
</tr>
<tr>
<td>Teratogenicity</td>
<td>Suspected of damaging the unborn child.</td>
</tr>
<tr>
<td>Developmental effects</td>
<td>No known significant effects or critical hazards.</td>
</tr>
<tr>
<td>Fertility effects</td>
<td>No known significant effects or critical hazards.</td>
</tr>
</tbody>
</table>

Other information
Gasoline - 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.
Section 11. Toxicological information

Gasoline: Additional toxicity information on the components:

Benzene: Acute toxicity of benzene results primarily from depression of the central nervous system (CNS). Inhalation of concentrations over 50 ppm can produce headache, lassitude, weariness, dizziness, drowsiness, or excitation. Exposure to very high levels can result in unconsciousness and death.

Benzene: Long-term overexposure to benzene has been associated with certain types of leukemia in humans. In addition, the International Agency for Research on Cancer (IARC), the National Toxicology Program, and OSHA consider benzene to be a human carcinogen. Chronic exposures to high levels of benzene have been reported to cause adverse blood effects including anemia. Benzene exposure can occur by inhalation and absorption through the skin. Inhalation and forced feeding studies of benzene in laboratory animals have produced a carcinogenic response in a variety of organs, including possibly leukemia, other adverse effects on the blood, chromosomal changes and some effects on the immune system. Exposure to benzene at levels up to 300 ppm did not produce birth defects in animal studies; however, exposure to higher dosage levels resulted in a reduction of body weight of the rat pups (fetotoxicity). Changes in the testes have been observed in mice exposed to benzene at 300 ppm, but reproductive performance was not altered in rats exposed to benzene at the same level. 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 material.

Toluene: 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 material. Deliberate inhalation of high concentrations of toluene has been linked to damage of the brain, liver and kidney. Inhalation of very high concentrations of toluene, such as in cases of solvent abuse, has resulted in sudden death which may be a result of cardiac arrhythmia or central nervous system depression. Mental and/or growth retardation has been reported in children of women who deliberately inhale toluene during pregnancy (usually at thousands of ppm). Foetal developmental toxicity was observed when pregnant rats were exposed to toluene at levels of 1500 ppm. Maternal toxicity was also observed at this concentration. Prolonged, high level exposure to toluene in laboratory animals has resulted in hearing loss. Exposure studies in rats have resulted in adverse effects on the kidney, liver and central nervous system. Studies in occupationally exposed individuals indicate that toluene exposure has been associated with impaired colour vision and decreased performance in some neurobehavioural tests. There are occupational studies which report an association between inhalation exposure to toluene and adverse effects on reproduction including spontaneous abortion. The methodology of these studies and the reliability of the results have been questioned. In a two-generation study in rats, inhalation of toluene at levels up to 2000 ppm did not produce adverse effects on fertility or reproductive performance.

Xylenes: Xylene has been reported to cause central nervous system effects at concentrations above the recommended exposure limit. Xylene vapour becomes irritating at relatively high levels. In one study, eye irritation was reported at exposures of 460 ppm and in one person at 230 ppm after 15 minutes. In another study, no one reported eyes, nose and throat irritation at mixed xylene exposures up to 230 ppm for 30 minutes. Dermal LD50 is expected to be greater than 10g/kg in rabbits, based on test results from similar materials.

Mixed xylenes caused slight hearing loss in rats exposed to 800 ppm in the air for 14 hours/day for six weeks. There is no information available for lower concentrations; however, similar chemicals that have caused these hearing effects at similar concentrations have not caused effects at lower concentrations.

Pregnant animals exposed to xylene or its isomers have been reported to cause development toxicity in rodents when exposed by inhalation. The developmental
Section 11. Toxicological information

Effects observed consisted of delayed development and minor skeletal variations, but no malformations. Because of the high exposure levels used in these studies, we do not believe that these results imply an increased risk of reproductive toxicity to workers exposed to xylene levels at or below the exposure limits.

Xylene and its isomers are not genotoxic.

Technical grade xylene has been tested in a National Toxicology Program carcinogenicity study in rats and mice dosed orally for two years. There was no evidence of carcinogenicity.

Ethylbenzene - The National Toxicology Program (NTP) conducted a 13-week inhalation study with male and female rats and mice at exposure concentrations ranging from 100 to 1000 ppm ethylbenzene. No rats or mice died during the study. Kidney, liver, and lung weights were increased in the exposed rats, while weight increases were observed only in the livers of exposed mice. Treatment-related histopathologic changes were not observed in any tissues of rats and mice. NTP also exposed male and female rats and mice by inhalation to 0, 75, 250, or 750 ppm ethylbenzene for 2 years. There was a statistically significant increase in the number of kidney tumors in male and female rats at 750 ppm. There were also increased incidences of lung tumors in male mice and liver tumors in female mice that were statistically significant at 750 ppm. Except for the male rat kidney tumors, the incidence of the tumors were within the range observed for non-exposed animals from other studies conducted by NTP. The significance of these findings to humans is unknown. Ethylbenzene is not genotoxic. The International Agency for Research on Cancer (IARC) has evaluated ethylbenzene and found it to be possibly carcinogenic to humans (Group 2B).

Ethylbenzene is not genotoxic.

Naphthalene has been reported to cause developmental toxicity in mice after oral exposure to relatively high dose levels, but developmental toxicity was not observed in NTP (National Toxicology Program) sponsored studies in rats and rabbits. Ingestion or inhalation of naphthalene can result in hemolysis and other blood abnormalities, and individuals (and infants) deficient in glucose-6-phosphate dehydrogenase may be especially susceptible to these effects. Inhalation of naphthalene may cause headache and nausea. Airborne exposure can result in eye irritation. Naphthalene exposure has been associated with cataracts in animals and humans.

Ethanol - Human data: In humans excessive consumption of alcoholic beverages during pregnancy is associated with the induction of Fetal Alcohol Syndrome in the offspring. Reduced birth weight and physical and mental defects occur. There is no evidence that such effects might be caused by exposures other than direct ingestion of alcoholic drinks. In humans high lifetime consumption of alcoholic beverages can be associated with certain cancers and effects on the liver. There is no evidence that these can be caused by exposure other than direct ingestion of alcoholic drinks (IARC 1988).

Section 12. Ecological information

<table>
<thead>
<tr>
<th>Toxicity</th>
<th>Product/ingredient name</th>
<th>Result</th>
<th>Species</th>
<th>Exposure</th>
</tr>
</thead>
<tbody>
<tr>
<td>Gasoline</td>
<td>Acute EC50 15.41 mg/l Nominal Fresh water</td>
<td>Micro-organism</td>
<td>40 hours</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Acute EL50 3.1 mg/l Nominal Fresh water</td>
<td>Algae</td>
<td>72 hours</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Acute EL50 3.7 mg/l Nominal Fresh water</td>
<td>Algae</td>
<td>96 hours</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Acute EL50 4.5 mg/l Nominal Fresh water</td>
<td>Daphnia</td>
<td>48 hours</td>
<td></td>
</tr>
</tbody>
</table>

Product name: Regular Unleaded petrol with 10% ethanol
Product code: 0000002889
Version: 1
Date of issue: 28 September 2015
Format: Australia
Language: ENGLISH
Page: 14/18
Section 12. Ecological information

<table>
<thead>
<tr>
<th>Product/ingredient name</th>
<th>Test</th>
<th>Dose</th>
<th>Inoculum</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ethanol</td>
<td>EPA</td>
<td>95 % - Readily - 15 days</td>
<td>-</td>
</tr>
<tr>
<td></td>
<td>EPA</td>
<td>84 % - Readily - 20 days</td>
<td>-</td>
</tr>
<tr>
<td></td>
<td>EPA</td>
<td>74 % - Readily - 5 days</td>
<td>-</td>
</tr>
<tr>
<td></td>
<td>EPA</td>
<td>74 % - Readily - 10 days</td>
<td>-</td>
</tr>
<tr>
<td>tert-butyl methyl ether(MTBE)</td>
<td>Modelled data</td>
<td>61 to 69 % - 151 days</td>
<td>-</td>
</tr>
</tbody>
</table>

Conclusion/Summary

Partially biodegradable.

Persistence and degradability

The biodegradability of this material has not been determined.

Bioaccumulative potential

Product name: Regular Unleaded petrol with 10% ethanol

Conclusion/Summary

Toxic to aquatic life with long lasting effects.
Section 12. Ecological information

This product is not expected to bioaccumulate through food chains in the environment.

<table>
<thead>
<tr>
<th>Product/ingredient name</th>
<th>LogP_{ow}</th>
<th>BCF</th>
<th>Potential</th>
</tr>
</thead>
<tbody>
<tr>
<td>Gasoline</td>
<td>2 to 7</td>
<td>-</td>
<td>high</td>
</tr>
<tr>
<td>Ethanol</td>
<td>-0.35</td>
<td>-</td>
<td>low</td>
</tr>
<tr>
<td>diisopropyl ether</td>
<td>2.4</td>
<td>-</td>
<td>low</td>
</tr>
<tr>
<td>tert-butyl methyl ether (MTBE)</td>
<td>1.04</td>
<td>-</td>
<td>low</td>
</tr>
<tr>
<td>2-methylpropan-2-ol</td>
<td>0.317</td>
<td>-</td>
<td>low</td>
</tr>
<tr>
<td>Benzene</td>
<td>2.13</td>
<td>11</td>
<td>low</td>
</tr>
</tbody>
</table>

Mobility in soil

Soil/water partition coefficient (K_{oc}) Not available.

Mobility Spillages may penetrate the soil causing ground water contamination.

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 methods The generation of waste should be avoided or minimised wherever possible. 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. Waste packaging should be recycled. Incineration or landfill should only be considered when recycling is not feasible. This material and its container must be disposed of in a safe way. Care should be taken when handling emptied containers that have not been cleaned or rinsed out. Empty containers or liners may retain some product residues. Vapour from product residues may create a highly flammable or explosive atmosphere inside the container. Do not cut, weld or grind used containers unless they have been cleaned thoroughly internally. 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.

Section 14. Transport information

<table>
<thead>
<tr>
<th></th>
<th>ADG</th>
<th>IMDG</th>
<th>IATA</th>
</tr>
</thead>
<tbody>
<tr>
<td>UN number</td>
<td>UN1203</td>
<td>UN1203</td>
<td>UN1203</td>
</tr>
<tr>
<td>UN proper shipping name</td>
<td>MOTOR SPIRIT or GASOLINE or PETROL</td>
<td>MOTOR SPIRIT or GASOLINE or PETROL</td>
<td>MOTOR SPIRIT or GASOLINE or PETROL</td>
</tr>
<tr>
<td>Transport hazard class(es)</td>
<td>3</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td>Packing group</td>
<td>II</td>
<td>II</td>
<td>II</td>
</tr>
<tr>
<td>Environmental hazards</td>
<td>No.</td>
<td>Yes.</td>
<td>No.</td>
</tr>
</tbody>
</table>
Section 14. Transport information

<table>
<thead>
<tr>
<th>Additional information</th>
<th>Hazchem code</th>
<th>Initial emergency response</th>
<th>Emergency schedules</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>3YE</td>
<td>14</td>
<td>(EmS) F-E,S-E</td>
</tr>
</tbody>
</table>

The marine pollutant mark is not required when transported in sizes of \( \leq 5 \) L or \( \leq 5 \) kg.

The environmentally hazardous substance mark may appear if required by other transportation regulations.

Special precautions for user Not available.

Section 15. Regulatory information

Standard Uniform Schedule of Medicine and Poisons

Not scheduled When packed in containers having capacity of greater than 20 litres.

S5. When packed in containers having capacity of less than 20 litres.

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.

Model Work Health and Safety Regulations - Scheduled Substances

No listed substance

International lists

National inventory

REACH Status For the REACH status of this product please consult your company contact, as identified in Section 1.

Australia inventory (AICS) All components are listed or exempted.

Canada inventory All components are listed or exempted.

China inventory (IECSC) At least one component is not listed.

Japan inventory (ENCS) Not determined.

Korea inventory (KECI) Not determined.

Philippines inventory (PICCS) Not determined.

Taiwan inventory (CSNN) Not determined.

United States inventory (TSCA 8b) At least one component is not listed.

Section 16. Any other relevant information

History

Date of printing 28/09/2015

Date of issue/Date of revision 28/09/2015

Date of previous issue No previous validation

Version 1

Product name Regular Unleaded petrol with 10% ethanol

Product code 0000002889

Page: 17/18

Version 1 Date of issue 28 September 2015 Format Australia Language ENGLISH

(Australia) (ENGLISH)
Section 16. Any other relevant information

Key to abbreviations

ADG = Australian Dangerous Goods
ATE = Acute Toxicity Estimate
BCF = Bioconcentration Factor
GHS = Globally Harmonized System of Classification and Labelling of Chemicals
IATA = International Air Transport Association
IBC = Intermediate Bulk Container
IMDG = International Maritime Dangerous Goods
LogPow = logarithm of the octanol/water partition coefficient
NOHSC = National Occupational Health and Safety Commission
STEL = Short term exposure limit
SUSMP = Standard Uniform Schedule of Medicine and Poisons
UN = United Nations
TWA = Time weighted average
VOC = Volatile Organic Compound
SADT = Self-Accelerating Decomposition Temperature
Varies = may contain one or more of the following 101316-69-2, 101316-70-5, 101316-71-6, 101316-72-7, 64741-88-4, 64741-89-5, 64741-95-3, 64741-96-4, 64741-97-5, 64742-01-4, 64742-44-5, 64742-45-6, 64742-52-5, 64742-53-6, 64742-54-7, 64742-55-8, 64742-56-9, 64742-57-0, 64742-58-1, 64742-62-7, 64742-63-8, 64742-64-9, 64742-65-0, 64742-70-7, 72623-85-9, 72623-86-0, 72623-87-1, 74869-22-0, 90669-74-2

Procedure used to derive the classification

<table>
<thead>
<tr>
<th>Classification</th>
<th>Justification</th>
</tr>
</thead>
<tbody>
<tr>
<td>Flam. Liq. 1, H224</td>
<td>Expert judgment</td>
</tr>
<tr>
<td>Skin Irrit. 2, H315</td>
<td>Expert judgment</td>
</tr>
<tr>
<td>Eye Irrit. 2A, H319</td>
<td>Expert judgment</td>
</tr>
<tr>
<td>Muta. 1B, H340</td>
<td>Expert judgment</td>
</tr>
<tr>
<td>Carc. 1B, H350</td>
<td>Expert judgment</td>
</tr>
<tr>
<td>Repr. 2, H361 (Unborn child)</td>
<td>Expert judgment</td>
</tr>
<tr>
<td>STOT SE 3, H336</td>
<td>Expert judgment</td>
</tr>
<tr>
<td>Asp. Tox. 1, H304</td>
<td>Expert judgment</td>
</tr>
</tbody>
</table>

Indicates information that has changed from previously issued version.

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 BP Group.

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