1. Identification of the material and supplier

Product name: Methmix 45/55
SDS no.: SAV2108
Product use: Fuel additive. For specific application advice see appropriate Technical Data Sheet or consult our company representative.
Supplier: BP Australia Pty Ltd (ABN 50 004 085 616)
Melbourne Central, 360 Elizabeth Street
Melbourne
Victoria 3000 Australia
Tel: +61 3 9268 4111 Fax: +61 3 9268 3321
EMERGENCY TELEPHONE NUMBER: 1800 638 556 (24 hour)
Product code: SAV2108.

2. Hazards identification

HAZARDOUS SUBSTANCE. DANGEROUS GOODS.

Statement of hazardous/dangerous nature:
R10- Flammable.
R23/24/25- Toxic by inhalation, in contact with skin and if swallowed.
R39/23/24/25- Toxic: danger of very serious irreversible effects through inhalation, in contact with skin and if swallowed.

Risk phrases:
S7- Keep container tightly closed.
S16- Keep away from sources of ignition - No smoking.
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).

3. Composition/information on ingredients

<table>
<thead>
<tr>
<th>Ingredient name</th>
<th>CAS no.</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Methanol</td>
<td>67-56-1</td>
<td>20 - 50</td>
</tr>
</tbody>
</table>

Other ingredients, determined not to be hazardous according to NOHSC criteria, and not dangerous according to the ADG Code, make up the product concentration to 100%.

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 immediately.

Skin contact
Immediately wash exposed skin with soap and water. Drench contaminated clothing with water before removing. This is necessary to avoid the risk of sparks from static electricity that could ignite contaminated clothing. Contaminated clothing is a fire hazard. Contaminated leather, particularly footwear, must be discarded. Remove contaminated clothing and shoes. Wash contaminated skin with soap and water. Wash contaminated clothing before reusing. Get medical attention immediately.

Inhalation
If inhaled, remove to fresh air. If not breathing, give artificial respiration. Do not use mouth to mouth ventilation. If breathing is difficult, give oxygen. Get medical attention immediately.

Ingestion
Do not induce vomiting unless directed to do so by medical personnel. Never give anything by mouth to an unconscious person. Get medical attention immediately.

Advice to doctor
The onset of symptoms may be delayed. Do not wait for symptoms to develop. Significant quantities of methanol can be absorbed by ingestion, inhalation and through intact skin. Methanol causes central nervous system (CNS) depression and its metabolites cause metabolic acidosis and may lead to permanent visual impairment. If casualty vomits and/or loses consciousness maintain a patent airway and give cardio-pulmonary resuscitation (CPR) as necessary. Gastric aspiration/lavage should be considered to prevent aspiration of vomit. Metabolic acidosis should be corrected. Metabolism of methanol may be blocked by administration of ethanol. Haemodialysis may be required in severe cases.
5. Fire-fighting measures

Extinguishing media

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

Not suitable
Do not use water jet.

Hazardous decomposition products
Decomposition products may include the following materials:
- carbon dioxide
- carbon monoxide

Unusual fire/explosion hazards
Burns with an almost invisible flame. Flammable liquid and vapour. Vapours may form explosive mixtures with air. Vapours may accumulate in low or confined areas or travel a considerable distance to a source of ignition and flash back. Runoff to sewer may create fire or explosion hazard.

Special fire-fighting procedures
DO NOT FIGHT FIRE WHEN IT REACHES MATERIAL. Withdraw from fire and let it burn. Promptly isolate the scene by removing all persons from the vicinity of the incident if there is a fire. First move people out of line-of-sight of the scene and away from windows.

Protection of fire-fighters
Fire-fighters should wear self-contained breathing apparatus (SCBA) and full chemical protective clothing.

Hazchem code
3WE

6. Accidental release measures

Personal precautions
No action shall be taken involving any personal risk or without suitable training. Immediately contact emergency personnel. Evacuate surrounding areas. Keep unnecessary and unprotected personnel from entering. Ensure good ventilation. Follow all fire-fighting procedures (section 5). Do not touch or walk through spill material. Shut off all ignition sources. No flames, smoking or flames in hazard area. Do not breathe vapour or mist. Use suitable protective equipment (section 8). 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 positive pressure breathing apparatus (SCBA).

Environmental precautions
Storage tanks must be positioned within a bunded area. Avoid contact of spill material with soil and prevent runoff entering surface waterways. Inform the relevant authorities if the product has caused environmental pollution (sewers, waterways, soil or air).

Large spill
Stop leak if without risk. Eliminate all ignition sources. Move containers from spill area. Approach the release from upwind.
Where appropriate, use water spray to disperse the gas or vapour and to protect personnel attempting to stop leakage.
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. Avoid contact of spill material with soil and prevent runoff entering surface waterways.
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 (see section 13). Use spark-proof tools and explosion-proof equipment. The method and equipment used must be in conformance with appropriate regulations and industry practice on explosive atmospheres. Contaminated absorbent material may pose the same hazard as the spill product. Dispose of via a licensed waste disposal contractor. Note: see section 1 for emergency contact information and section 13 for waste disposal.

Small spill
Stop leak if without risk. Eliminate all ignition sources. 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. Use a method that can be used safely in an explosive atmosphere to transfer material to a sealed, appropriate container for disposal. The method and equipment used must be in conformance with appropriate regulations and industry practice on explosive atmospheres. Contaminated absorbent material may pose the same hazard as the spill product. Dispose of via a licensed waste disposal contractor.

7. Handling and storage

Handling
Do not ingest. Never siphon by mouth. Workers should wash hands and face before eating, drinking and smoking. Do not get in eyes, on skin or on clothing. Use only with adequate ventilation. Do not breathe vapour or mist. Wear suitable respiratory protective devices if there is a risk of exposure limits being exceeded. Keep away from heat, sparks and flame. Take precautionary measures against static electricity. To avoid fire or explosion, dissipate static electricity during transfer by earthing and bonding containers and equipment before transferring material. Use explosion-proof electrical (ventilating, lighting and material handling) equipment. Wash thoroughly after handling.

Storage
Store in a segregated and approved area. Do not remove warning labels from containers. Store away from direct sunlight in a dry, cool and well-ventilated area, away from incompatible materials (see section 10) and food and drink. Keep container tightly closed and sealed until ready for use. Avoid all possible sources of ignition (spark or flame). Store away from oxidizing agents. Use appropriate containment to avoid environmental contamination.
Do not enter storage tanks. If entry to vessels is necessary, follow permit to work procedures. Entry to any tanks or other confined space requires a full risk assessment and appropriate control measures to be put in place in conformance with appropriate regulations and industry practice on confined space....
entry. 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. 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. Suitable storage materials are mild steel; stainless steel.

Not suitable
Do not store in: Aluminium. (and its alloys), zinc, PVC. Incompatible with lead and its alloys.

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

8. Exposure controls/personal protection

<table>
<thead>
<tr>
<th>Ingredient name</th>
<th>Occupational exposure limits</th>
</tr>
</thead>
</table>

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

Biological Limit Values
No biological limit allocated.

Exposure controls
Provide exhaust ventilation or other engineering controls to keep the airborne concentrations of vapours below their respective occupational exposure limits. Ensure that eyewash stations and safety showers are close to the workstation location. All chemicals should be assessed for their risks to health and appropriate control measures put in place to prevent or adequately control exposure. A hierarchy of control measures exists (e.g. elimination, substitution, general ventilation, containment, systems of work, changing the process or activity) that must be considered before use of personal protective equipment. Personal protective equipment should conform to appropriate standards, be suitable for use, be kept in good condition and properly maintained. Your supplier of personal protective equipment should be consulted for advice on selection and appropriate standards. For further information contact your national organisation for standards. The final choice of protective equipment will depend upon a risk assessment. It is important to ensure that all items of personal protective equipment are compatible. The above information is provided to assist the customer in conducting its own assessment of risk to the health and safety of workers for the substance or preparation, and protection of the environment.

Hygiene measures
Wash hands, forearms and face thoroughly after handling chemical products, before eating, smoking and using the lavatory and at the end of the working period.

Personal protective equipment
Respiratory protection
Use only with adequate ventilation. Do not breathe vapour or mist. Approved air-supplied breathing apparatus must be worn where there is a risk of exceeding the exposure limit of methanol. Do not use air purifying respirators since the cartridges will not adsorb methanol vapors.

Skin and body
Do not get on skin or clothing. Wear suitable protective clothing.

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. 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.

Hand protection
Wear chemical resistant gloves. Recommended: Butyl gloves. Recommended: Gloves made from fluoroelastomer resistant to hydrocarbons and a wide range of chemicals.

Do not re-use contaminated or damaged gloves. 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.

Eye protection
Wear chemical goggles and a full face shield
9. Physical and chemical properties

**Physical state**  
Liquid.

**Colour**  
Colourless to light yellow.

**Odour**  
Characteristic. Alcohol.

**Flash point**  
30 °C (Closed cup) Pensky-Martens.

**Explosive properties**  
Burns with an almost invisible flame. Flammable liquid and vapour. Vapours may form explosive mixtures with air. Vapours may accumulate in low or confined areas or travel a considerable distance to a source of ignition and flash back. Runoff to sewer may create fire or explosion hazard.

**Vapour pressure**  
Not available.

**Vapour density**  
Not available.

**Viscosity**  
Kinematic: 0.738 mm²/s (0.738 cSt) at 20°C

**pH**  
Not available.

**Boiling point / range**  
80°C (176°F)

**Melting point / range**  
Not available.

**Density**  
950 kg/m³ (0.95 g/cm³) at 20°C

**Solubility**  
Soluble in water.

10. Stability and reactivity

**Stability**  
The product is stable.

**Conditions to avoid**  
Avoid all possible sources of ignition (spark or flame). Keep away from heat and direct sunlight.

**Incompatibility with various substances/Hazardous Reactions**  
Highly reactive or incompatible with the following materials: oxidizing materials and acids.

**Hazardous decomposition products**  
Decomposition products may include the following materials:
- carbon dioxide
- carbon monoxide

11. Toxicological information

**Effects and symptoms**

**Eyes**  
Causes eye irritation. Exposure to vapour, mist or fume may cause stinging, redness and watering of the eyes.

**Skin**  
Toxic if absorbed through skin. Harmful on prolonged exposure. Can be fatal or cause blindness if swallowed, inhaled, or on prolonged or repeated skin contact. Prolonged or repeated contact can defat the skin and lead to irritation and/or dermatitis.

**Inhalation**  
Toxic if inhaled. Inhalation causes headaches, dizziness, drowsiness and nausea and may lead to unconsciousness. Harmful on prolonged exposure. Inhalation of vapour, mist or fume may cause a sore throat, coughing and shortness of breath. Can be fatal or cause blindness if swallowed, inhaled, or on prolonged or repeated skin contact.

**Ingestion**  
Toxic if swallowed. May be fatal or cause blindness if swallowed. If swallowed, may irritate the mouth, throat and digestive system. If swallowed, causes headaches, dizziness, drowsiness and nausea, and may lead to unconsciousness.

**Chronic toxicity**

**Carcinogenic effects**  
No component of this product at levels greater than or equal to 0.1% is identified as a carcinogen by ACGIH, the International Agency for Research on Cancer (IARC), the European Commission (EC), or the National Occupational Health and Safety Commission (Australia).

**Mutagenic effects**  
No known significant effects or critical hazards.

**Other information**  
This product contains methanol. Ingestion of methanol or gross overexposure to methanol vapours or mist can cause blindness, metabolic acidosis and can be fatal. It can cause headache, giddiness, gastrointestinal disturbances, fatigue, inebriation, irritability, narcosis, and eye irritation. Prolonged or repeated skin contact with methanol can also cause poisoning. Death from ingestion of less than 30 ml has been reported in humans. Rat oral LD50: 5628 mg/kg; rat inhalation LC50: 64,000 ppm/4 hour; Rabbit dermal LD50: 15,800 mg/kg.

12. Ecological information

**Ecotoxicity**  
Not classified as environmentally hazardous in accordance with the ‘Approved Criteria for Classifying Hazardous Substances’ [NOHSC (1008)/2004 as amended and adapted].

**Biodegradability**  
Readily biodegradable

**Persistence/degradability**  
The product is poorly absorbed onto soils or sediments.

**Mobility**  
The product is not expected to bioaccumulate through food chains in the environment.
13. Disposal considerations

Disposal considerations / Waste information
The generation of waste should be avoided or minimised wherever possible. Empty containers or liners may retain some product residues. This material and its container must be disposed of in a safe way. Dispose of surplus and non-recyclable products via a licensed waste disposal contractor. Disposal of this product, solutions and any by-products should at all times comply with the requirements of environmental protection and waste disposal legislation and any regional local authority requirements. Avoid dispersal of spilt material and runoff and contact with soil, waterways, drains and sewers.

Special Precautions for Landfill or Incineration
No additional special precautions identified.

14. Transport information

International transport regulations

<table>
<thead>
<tr>
<th>Regulatory information</th>
<th>UN number</th>
<th>Proper shipping name</th>
<th>Class</th>
<th>PG*</th>
<th>Label</th>
<th>Additional information</th>
</tr>
</thead>
<tbody>
<tr>
<td>ADG Classification</td>
<td>UN 1992</td>
<td>FLAMMABLE LIQUID, TOXIC, N.O.S. (Methanol)</td>
<td>3 (6.1)</td>
<td>II</td>
<td>FLAMMABLE LIQUID, TOXIC, N.O.S. (Methanol)</td>
<td>Hazchem code 3WE</td>
</tr>
<tr>
<td>IMDG Classification</td>
<td>UN 1992</td>
<td>FLAMMABLE LIQUID, TOXIC, N.O.S. (Methanol)</td>
<td>3 (6.1)</td>
<td>II</td>
<td>FLAMMABLE LIQUID, TOXIC, N.O.S. (Methanol)</td>
<td>Emergency schedules (EnS) F-E, S-D</td>
</tr>
<tr>
<td>IATA/ICAO Classification</td>
<td>UN 1992</td>
<td>FLAMMABLE LIQUID, TOXIC, N.O.S. (Methanol)</td>
<td>3 (6.1)</td>
<td>II</td>
<td>FLAMMABLE LIQUID, TOXIC, N.O.S. (Methanol)</td>
<td></td>
</tr>
</tbody>
</table>

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

15. Regulatory information

Standard for the Uniform Scheduling of Drugs and Poisons
6
Control of Scheduled Carcinogenic Substances

Ingredient name
No Listed Substance

Other regulations
Europe inventory
All components are listed or exempted.
United States inventory (TSCA 8b)
All components are listed or exempted.
Australia inventory (AICS)
All components are listed or exempted.
Canada inventory
All components are listed.
China inventory (IECSC)
All components are listed or exempted.
Japan inventory (ENCS)
All components are listed or exempted.
Korea inventory (KECI)
All components are listed or exempted.
Philippines inventory (PICCS)
All components are listed or exempted.
Key to abbreviations

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

History

Date of issue 19/05/2010.
Date of previous issue No previous validation.
Prepared by Product Stewardship

Notice to reader

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

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

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