

**JFP / CHEETAH  
MATERIAL SAFETY DATA SHEET  
JFP 105 UNLEADED RACING FUEL**



**High Performance Fuels for High Performance Cars.**



## JFP MATERIAL SAFETY DATA SHEET JFP 105 RACING FUEL



### SECTION 1: IDENTIFICATION OF THE MATERIAL AND SUPPLIER

|                             |   |
|-----------------------------|---|
| Product Name:               | JFP 105 Unleaded Racing Fuel                              |
| Manufacturer Code:          | 29249   |
| Product Use:                | Fuel / Gasolene   |
| UN Number:                  | 1203  |
| DG Class:                   | 3   |
| Supplier:                   | JFP, JUST FUEL PETROLEUM                                  |
| Address:                    | 2 Western Avenue, Sunshine, Victoria, 3020                |
| Telephone:                  | 03 9312 4788  |
| Email Address:              | mario@justfuel.com.au                                     |
| Web Site:                   | www.justfuel.com.au                                       |
| Facsimile:                  | 03 9311 6026  |
| Emergency Phone Number:     | 000 Fire Brigade and Police (available in Australia only) |
| Poisons Information Centre: | 13 11 26 (available in Australia only)                    |

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

### SECTION 2: HAZARD IDENTIFICATION

**STATEMENT OF HAZARDOUS NATURE:** This product is considered hazardous according to regulatory Guidelines (See Section 1).

#### Potential Health Effects

Skin Irritation. May cause eye and respiratory irritation, headache, dizziness, nausea, loss of consciousness and in cases of extreme exposure, possibly death. Low viscosity material, if swallowed may enter the lungs and cause Lung damage. Overexposure to benzene may result in cancer, blood disorders and damage to bone marrow. Long-term exposure to gasolene vapour has caused kidney and liver cancer in laboratory animals. Case reports of chronic gasolene abuse (such as sniffing) and chronic misuse as a solvent or as a cleaning agent, have shown a range of nervous system effects, sudden deaths from heart attacks, blood defects and leukemia. These effects are not expected to occur at exposure levels encountered in the distribution and use of gasolene as a motor fuel.

#### Potential Environmental Effects

Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

For further health effects / toxicological data, see section 10.

## SECTION 3: HANDLING AND STORAGE

## HANDLING

|                                 |   |
|---------------------------------|---|
| <b>Storage:</b>                 | Drums must be grounded and bonded and equipped with self-closing valves, pressure vacuum bungs and flame arresters. Store away from all ignition sources in a cool, well ventilated area equipped with an automatic sprinkling system. Outside or detached storage preferred. Storage containers should be grounded and bonded. See Section 17 for Regulatory information when storing this product.  |
| <b>Special Precautions:</b>     | To prevent and minimize fire or explosion risk from static accumulation and discharge, effectively bond and/or ground product transfer system. Do not use electronic devices (including but not limited to cellular phones, computers, calculators, pagers, etc.) in or around any fueling 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 Electrical equipment and fittings must comply with local fire prevention regulations for this class of product. Use the correct grounding procedures. Refer to national or local regulations covering safety at petroleum handling and storage areas for this product. |
| <b>Empty Container Warning:</b> | Empty containers retain residue (liquid and/or vapor) and can be dangerous. DO NOT PRESSURIZE, 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. Do not attempt to refill or clean container since residue is difficult to remove. Empty drums should be completely drained, properly bunged and promptly returned to a drum reconditioner. All containers should be disposed of in an environmentally safe manner and in accordance with governmental regulations.  |

## SECTION 4: HEALTH HAZARD INFORMATION

 FIRST AID

|  |  |
|--|--|
| <b>Ingestion:</b>  | If conscious, dilute stomach contents by giving large amounts of water or milk. Transport to medical attention immediately.  |
| <b>Eye contact:</b>  | Flush thoroughly with water. If irritation persists, call a doctor.  |
| <b>Inhalation:</b>   | Remove from further exposure. If respiratory irritation, dizziness, nausea or unconsciousness occurs, seek immediate medical assistance. If breathing has stopped assist ventilation with mechanical device or use mouth to mouth resuscitation. |
| <b>Skin Contact:</b>   | Wash contact areas with water. Immediately remove contaminated clothing, including shoes. (See Section 18 - Injection Injury)  |
| <p><b>Advice to doctor:</b></p> <p>Material if ingested may be aspirated into the lungs and can cause chemical pneumonitis. PRE-EXISTING MEDICAL CONDITIONS WHICH MAY BE AGGRAVATED BY EXPOSURE: Skin contact may aggravate an existing dermatitis. Benzene- Individuals with liver disease may be more susceptible to toxic effects. Hexane- Individuals with neurological disease should avoid exposure.</p> |  |

## SECTION 5: FIRE FIGHTING MEASURES

|   |   |
|---|---|
| <b>Extinguishing Media:</b>                                 | Carbon dioxide, foam, dry chemical, water fog.  |
| <b>Special Firefighting Procedures:</b>                     | Evacuate area. For large spills, fire fighting foam is the preferred agent and should be applied in sufficient quantities to blanket the product surface. Water may be ineffective, but water should be used to keep fire-exposed containers cool. Water spray may be used to flush spill away from exposures, but good judgement should be practiced to prevent spreading of the product into sewers, streams or drinking water supplies. If a leak or spill has not ignited, apply a foam blanket to suppress the release of vapours. If foam is not available, a water spray curtain can be used to disperse vapours and to protect personnel attempting to stop the leak. |
| <b>Special Protective Equipment:</b>                        | For fires in enclosed areas, firefighters must use self-contained breathing apparatus.  |
| <b>Unusual Fire And Explosion Hazards:</b>                  | EXTREMELY FLAMMABLE, HIGH HAZARD.   |
| <b>Combustion Products:</b>                                 | Fumes, smoke, carbon monoxide, sulfur oxides, aldehydes and other decomposition products, in the case of incomplete combustion.   |
| <b>Flash Point °C (F):</b>                                  | <-40°C (-40) (ASTM D-56)  |
| <b>NFPA HAZARD ID:</b>                                      | Health: 1 , Flammability: 3 , Reactivity: 0   |
| Flammable Limits (approx.% vol.in air)- LEL 1.4%, UEL: 7.6% |   |

## SECTION 6: ACCIDENTAL RELEASE MEASURES

|                                 |   |
|---------------------------------|---|
| <b>Notification Procedures:</b> | Report spills as required to appropriate authorities. In case of accident or road spill, contact the Police and Fire Brigade and, if appropriate, the Area Water Authority. |
|---------------------------------|---|

## PROCEDURES IF MATERIAL IS RELEASED OR SPILLED

|                                   |  |
|-----------------------------------|--|
| <b>Land Spill:</b>                | Eliminate sources of ignition. Warn occupants in downwind areas of fire and explosion hazard. Shut off source taking normal safety precautions. Take measures to minimize the effects on ground water. Recover by pumping using explosion-proof equipment or contain spilled liquid with sand or other suitable absorbent and remove mechanically into containers. If necessary, dispose of adsorbed residues as directed in Section 12. |
| <b>Water Spill:</b>               | Eliminate sources of ignition. Advise occupants and ships in the vicinity in downwind areas of fire and explosion hazard and warn them to stay clear. Notify port and other relevant authorities. Do not confine in area of leakage. Allow liquid to evaporate from the surface. Do not use dispersants.   |
| <b>Environmental Precautions:</b> | Prevent material from entering sewers, water sources or low lying areas; advise the relevant authorities if it has, or if it contaminates soil/vegetation.   |
| <b>Personal Precautions:</b>      | See section 18   |

## SECTION 7: PHYSICAL AND CHEMICAL PROPERTIES

|                                     |                          |
|-------------------------------------|--------------------------|
| <b>Physical State:</b>              | Liquid                   |
| <b>Colour:</b>                      | Clear (May Be Dyed)      |
| <b>Odour:</b>                       | Gasolene                 |
| <b>Odour Threshold (ppm):</b>       | NE                       |
| <b>PH</b>                           | NA                       |
| <b>Boiling Point/range °C (F):</b>  | > 23 (73)                |
| <b>Melting Point °C (F):</b>        | NA                       |
| <b>Flash Point °C (F):</b>          | <-40°C (-40) (ASTM D-56) |
| <b>Flammable (solids):</b>          | NE                       |
| <b>Auto Flammability °C (F):</b>    | NE                       |
| <b>Explosive Properties:</b>        | NA                       |
| <b>Oxidizing Properties:</b>        | NA                       |
| <b>Evaporation Rate:</b>            | NE                       |
| <b>Relative Density, 15/4°C:</b>    | 0.74                     |
| <b>Solubility in Water:</b>         | 100                      |
| <b>Partition Coefficient:</b>       | >1                       |
| <b>Viscosity at 40°C, cSt:</b>      | < 1.0                    |
| <b>Viscosity at 100°C, cSt:</b>     | NA                       |
| <b>Pour Point°C:</b>                | NA                       |
| <b>Freezing Point°C (F):</b>        | NE                       |
| <b>DMSO Extract, IP-346 (WT.%):</b> | NA                       |

NA= Not Applicable

NE= Not Established

D= Decomposes

For further technical information, contact your JFP Marketing Representative.

## SECTION 8: STABILITY AND REACTIVITY

|  |   |
|--|---|
| <b>Stability (thermal, light, etc):</b>  | Stable  |
| <b>Incompatible Materials:</b>           | Halogens, Strong acids, alkalise and oxidisers.           |
| <b>Conditions to avoid:</b>              | Heat, sparks, flame and build - up of static electricity. |
| <b>Hazardous Decomposition Products:</b> | Product does not decompose at ambient temperature.        |
| <b>Hazardous Polymerisation:</b>         | Will not occur.   |

## SECTION 9: TOXICOLOGICAL DATA

|                                   |  |
|-----------------------------------|--|
| <b>Oral toxicity:</b>             | Practically non-toxic (LD50: greater than 2000 mg/kg). ---Based on testing of similar products and/or the components.  |
| <b>Dermal toxicity:</b>           | Practically non-toxic (LD50: greater than 2000 mg/kg). ---Based on testing of similar products and/or the components.  |
| <b>Inhalation toxicity:</b>       | Practically non-toxic ---Based on testing of similar products and/or the components.   |
| <b>Eye irritation:</b>            | Practically non-irritating. (Draize score: greater than 6, but 15 or less).---Based on testing of similar products and/or the components.  |
| <b>Skin irritation:</b>           | Irritant. (Primary Irritation Index: 3 or greater, but less than 5).---Based on testing of similar products and/or the components.   |
| <b>Other acute toxicity data:</b> | Inhalation of high concentrations of vapours or aerosols/mists, especially deliberate or abuse exposure, may cause respiratory system irritation and damage. These exposures may result in central nervous system depression and damage, possibly leading to death. Prolonged skin contact with gasoline may cause severe skin irritation similar to a chemical burn. The above effects, which may result from the whole gasoline of some of the gasoline components, are well documented in the medical literature. HAZARDS OF COMBUSTION PRODUCTS: Exposure to high concentrations of carbon monoxide can cause loss of consciousness, heart damage, brain damage and death. |

## SUBCHRONIC TOXICOLOGY (SUMMARY)

Two dermal studies resulted in significant irritation in rabbits but no significant systemic toxicity. 90-day inhalation exposures (approximately 1500 ppm vapor) in rats and monkeys produced light hydrocarbon nephropathy in male rats, but no other significant systemic toxicity.

## NEUROTOXICOLOGY (SUMMARY)

Exposure to high concentrations of unleaded gasoline in rodents caused reversible central nervous system depression, however, no persistent neurotoxic effects were observed in subchronic inhalation studies of gasoline blending streams. No neurotoxic effects, as measured by a functional observation battery, motor activity, and neuropathology, were observed in rats exposed to light alkylate naphtha for 13 weeks at concentrations up to 6600 ppm. The medical literature clearly documents neurotoxic effects in humans from abusive gasoline inhalation (sniffing).

## REPRODUCTIVE TOXICOLOGY (SUMMARY)

Two separate inhalation teratology studies of unleaded gasoline vapour at exposures up to 1600 ppm and 9000 ppm for 6 hours/day on days 6-20 did not result in any significant developmental effects in rats. No significant effects were observed in the mothers or offspring. A two-generation inhalation reproductive study (CONCAWE) of unleaded gasoline showed no reproductive or developmental effects in rats exposed to concentrations up to 20,000 mg/m<sup>3</sup> (approx. 8000 ppm).

## CHRONIC TOXICOLOGY (SUMMARY)

A lifetime mouse skin painting study of unleaded gasoline applied at 50 microliters, three times weekly, resulted in some severe skin irritation and changes, but no statistically significant increase in skin cancer or cancer to any other organ. A lifetime inhalation study of vapourized unleaded gasoline at up to 2000 ppm caused liver tumours in female mice and increased kidney tumours in male rats. The kidney tumours resulted from the formation of a compound unique to male rats, and are not considered relevant to humans. The U.S. EPA Risk Assessment Forum concluded that the male rat kidney tumour results are not relevant for human risk assessment. The implications for the female mice liver tumour data for human risk assessment have not been fully determined. Multiple short-term cancer predicative tests (Ames Test, etc.) have routinely been negative (no cancer or mutagenic potential) for unleaded gasoline.

## SECTION 10: TOXICOLOGICAL DATA CONTINUED

## SENSITIZATION TOXICOLOGY (SUMMARY)

Unleaded gasoline was not a skin sensitizer in tests in a Buehler Guinea Pig Sensitization Assay.

## OTHER TOXICOLOGY DATA

Gasoline and Refinery Streams: Isolated constituents of gasoline may display these or other potential hazards in laboratory tests. Gasoline consists of a complex blend of petroleum/processing derived paraffinic, olefinic, naphthenic and aromatic hydrocarbons which include up to 5% benzene (with 1-2 % typical in the U.S.), n-hexane, mixed xylenes, toluene, ethylbenzene and trimethyl benzene. Benzene has also caused damage to the fetus of test animals in developmental studies. Benzene has tested positive (mutagenic) in a number of short-term cancer/mutation predicative tests. Repeated exposures to low levels of benzene (50-500 ppm) have been reported to result in blood abnormalities including anemia and, in rare cases, leukemia in both animals and humans. Prolonged exposure to n-hexane may result in a condition known as peripheral neuropathy. This is nervous system damage and is characterised by numbness of the extremities and, in extreme cases, paralysis. This product contains ethylbenzene. The International Agency for Research on Cancer (IARC) has evaluated ethylbenzene and classified it as possibly carcinogenic to humans (Group 2B) based on sufficient evidence for carcinogenicity in experimental animals, but inadequate evidence for cancer in exposed humans. Methyl Tertiary Butyl Ether (MTBE) was tested for carcinogenicity, neurotoxicity, chronic, reproductive, and developmental toxicity. The NOEL for all end points evaluated in three animal species was 400 ppm or greater. An increase in kidney tumors/damage and liver tumors was observed in animals exposed to high concentrations of MTBE. Some embryo/fetal toxicity and birth defects were observed in the offspring of pregnant mice exposed to maternally toxic doses of MTBE, however the offspring of exposed pregnant rabbits were unaffected. The significance of the animal findings at high exposures are not believed to be directly related to potential human health hazards in the workplace.

## SECTION 11: ECOLOGICAL INFORMATION

|  |  |
|--|--|
| <b>Environmental Fate And Effects:</b> | In the absence of specific environmental data for this product, this assessment is based on information for representative substances.   |
| <b>Eco toxicity:</b>                   | Based on test results for similar products, this substance may be toxic to aquatic organisms such as algae and daphnia (EL50/ IrL50 =1-10 mg/L). This substance has also been shown to be toxic to fish (LL50 = 1-10 mg/L).  |
| <b>Mobility:</b>                       | Dissolution of the higher molecular weight hydrocarbon components in water will be limited, but losses through sediment adsorption may be significant.   |
| <b>Persistence and Degradability:</b>  | The majority of the components in this product would be expected to be inherently biodegradable. When released into the environment, some of the constituents of gasoline will volatilize and be photodegraded in the atmosphere. The less volatile, more water-soluble components which are aromatic hydrocarbons will also undergo aqueous photodegradation. |
| <b>Bioaccumulative Potential:</b>      | Not established  |

## SECTION 12: DISPOSAL CONSIDERATIONS

|                        |   |
|------------------------|---|
| <b>Waste Disposal:</b> | Product is suitable for burning for fuel value in compliance with applicable laws and regulations and consideration of product characteristics at time of disposal. |
|------------------------|---|

## SECTION 13: TRANSPORT INFORMATION

## AUSTRALIAN ACTDG

|   |         |
|---|---------|
| <b>Shipping Name:</b>                           | Petrol  |
| <b>UN Number:</b>                               | 1203    |
| <b>HAZCHEM CODE</b>                             | 3 (Y) E |
| <b>Dangerous Goods Class / Subsidiary risk:</b> | 3       |
| <b>Packaging Group:</b>                         | PG II   |

## SECTION 14: TRANSPORT INFORMATION CONTINUED

## IMO

|                           |                  |
|---------------------------|------------------|
| <b>Haz Class And Div:</b> | 3                |
| <b>Un Number:</b>         | 1203             |
| <b>Packaging Group:</b>   | PG II            |
| <b>Shipping Name:</b>     | Gasolene         |
| <b>Label(s):</b>          | Flammable Liquid |
| <b>Marpol III Status:</b> | NA               |

## ICAO/IATA

|                           |                  |
|---------------------------|------------------|
| <b>Haz Class And Div:</b> | 3                |
| <b>Id / Un Number:</b>    | 1203             |
| <b>Packaging Group:</b>   | PG II            |
| <b>Shipping Name:</b>     | Gasolene         |
| <b>Subsidiary Risk:</b>   | NA               |
| <b>Label(s):</b>          | Flammable Liquid |

|   |     |
|---|-----|
| <b>Static Accumulator (50 picosiemens or less):</b> | YES |
|---|-----|

## SECTION 15: REGULATORY INFORMATION

## AUSTRALIAN CLASSIFICATIONS

|   |         |
|---|---------|
| <b>Un Number:</b>                               | 1203    |
| <b>HAZCHEM CODE:</b>                            | 3 (Y) E |
| <b>Dangerous Goods Class / Subsidiary risk:</b> | 3       |
| <b>Packaging Group:</b>                         | PG II   |
| <b>AS CLASS:</b>                                | PG II   |
| <b>Poisons Schedule</b>                         | S5      |

|                     |   |
|---------------------|---|
| <b>EC Labeling:</b> | Product is dangerous as defined by the European Union Dangerous Substances/Preparations Directives. |
| <b>Symbol:</b>      | F+ T N Extremely flammable, Toxic, Dangerous for the environment.                                   |

|                             |   |
|-----------------------------|---|
| <b>Risk Phrase(s):</b>      | R12-45-38-65-67-51/53.  |
| <b>Extremely Flammable:</b> | May cause cancer. Irritating to skin.   |
| <b>Harmful:</b>             | May cause lung damage if swallowed. Vapors may cause drowsiness and dizziness.<br>Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment. |

|   |                             |
|---|-----------------------------|
| <b>Safety Phrase(s):</b>  | S16-53-45-2-23-24-29-43-62. |
| Keep away from sources of ignition - No Smoking. Avoid exposure - obtain special instructions before use. If case of accident or if you feel unwell, seek medical advice immediately. (show the label where possible). Keep out of the reach of children. Do not breathe vapour. Avoid contact with skin. Do not empty into drains. In case of fire use foam/drypowder/CO2. If swallowed, do not induce vomiting: seek medical advice immediately and show this container or label. |                             |

|                                       |   |
|---------------------------------------|---|
| <b>Contains:</b>                      | Low boiling point naphtha   |
| <b>Governmental inventory status:</b> | All components comply with European EINECS/ELINCS, US TSCA and Australian AICS. |



## SECTION 16: REGULATORY INFORMATION CONTINUED

## THE FOLLOWING PRODUCT INGREDIENTS ARE CITED IN THE LISTS BELOW

| CHEMICAL NAME (component analysis)        | CAS NUMBER     | LIST CITATIONS |
|---|----------------|----------------|
| ETHYL ALCOHOL                             | 64 - 17 - 5    | 1, 6           |
| BENENE                                    | 71 - 43 - 2    | 1, 4, 6, 7     |
| ISOPENTANE                                | 78 - 78 - 4    | 6              |
| 2,3-DIMETHYLBUTANE                        | 79 - 29 - 8    |                |
| PSEUDOCUMENE<br>(1,2,4-TRIMETHYL BENZENE) | 95 - 63 - 6    | 6              |
| PENTANE, 3 METHYL                         | 96 - 14 - 0    | 6              |
| ETHYL BENZENE                             | 100 - 41 - 4   | 3, 6           |
| BUTANE                                    | 106 - 97 - 8   | 6              |
| PENTANE, 2-METHYL                         | 106 - 97 - 8   | 6              |
| METHYLCYCLOHEXANE                         | 108 - 87 - 2   | 6              |
| TOLUENE                                   | 108 - 33 - 3   | 6              |
| PENTANE                                   | 109 - 66 - 0   | 6              |
| N-HEXANE                                  | 110 - 54 - 3   | 6              |
| I-HEXANE                                  | 592 - 41 - 6   | 6              |
| XYLENES                                   | 1330 - 20 - 7  | 6              |
| GASOLINE                                  | 8006 - 61 - 9  | 3, 6           |
| TRIMETHYL BENZENE                         | 25551 - 13 - 7 | 6              |

## REGULATORY LISTS SEARCHED

1=IARC 1 2=IARC 2A 3=IARC 2B 4=NTP CARC 5=NTP SUS 6=ACGIH 7=ACGIH CARC 8=ACGIH SUS  
 CARC=CARCINOGEN; SUS=SUSPECTED CARCINOGEN; TERAT=TERATOGENIC

## SECTION 17: COMPOSITION / INFORMATION ON INGREDIENTS

|                             |                            |
|-----------------------------|----------------------------|
| <b>Generic Composition:</b> | Hydrocarbons and additives |
|-----------------------------|----------------------------|

## GLOBALLY REPORTABLE MSDS INGREDIENTS:

| SUBSTANCE NAME       | APPROX. Wt% | EU CLASSIFICATION                        |
|----------------------|-------------|--|
| GASOLENE (8006-61-9) | 100         | F+; R12 T; R45 Xn; R65 Xi; R38 N; R51/53 |

## THIS PRODUCT CONTAINS THE FOLLOWING COMPONENT(S):

| SUBSTANCE NAME                 | APPROX. Wt% | EU CLASSIFICATION                                 |
|--------------------------------|-------------|---|
| ETHANOL (64 - 17- 5):          | 20          | F; R11  |
| XYLENE (1330-20-7)             | 15          | R10 Xn; R20/21 Xi; R38 N; R51/53                  |
| ISOPENTANE (78-78-4)           | 9           | F+; R12 Xn; R65 R66 R67 N; R51/53                 |
| TRIMETHYL BENZENE (25551-13-7) | 8           | R10 Xi; R38                                       |
| BUTANE (106-97-8)              | 6           | F; R12  |
| TOLUENE (108-88-3)             | 10          | F; R11, Xn R20                                    |
| 2 METHYLPENTANE (107-83-5)     | 4           | F; R11 Xn; R65 Xi; R38 R67 N; R51-R53             |
| PENTANE (109-66-0)             | 4           | F+; R12 Xn; R65 Xi; R38 R67 N; R51-R53            |
| 3 METHYLPENTANE (96-14-0)      | 2           | F; R11 Xn; R65 Xi; R38 R67 N; R51-R53             |
| 2,3-DIMETHYLBUTANE (107-83-5)  | 2           | F; R11 Xn; R65 Xi; R38 R67 N; R51-R53             |
| N-HEXANE (110-54-3)            | 2           | F; R11 Xn; R 62 R65 R48/21 Xi; R38 R67 N; R51-R53 |
| ETHYL BENZENE (100-41-4)       | 2           | F; R11, Xn R20                                    |
| 3-METHYLEXHANE (589-34-4)      | 2           | F; R11 Xn; R65 Xi; R38 R67 N; R50-53              |
| 2- METHYLEXHANE (591-76-4)     | 1           | F; R11 Xn; R65 Xi; R38 R67 N; R50-53              |
| METHYLCYCLOHEXANE (108-87-2)   | 1           | F; R11 Xn; R65 Xi; R38 R67 N; R51-53              |
| N-HEXANE (110-54-3)            | 1           | F; R11 T; R45 T; R48/23/24/25                     |

Note: the concentration of the components shown above may vary substantially. In certain countries benzene content may be limited to Lower levels (eg. Us reformulated gasoline). Oxygenates such as tertiary-amyl-methyl ether, ethanol, di-isopropyl ether, and Ethyl-tertiary-butyl ether will be present (eg. Concentration to provide a minimum oxygen content of 1.5 wt% in the us). 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, isobutene, and pentane and isopentane. The reportable component percentages, Shown in the regulatory information section, are based on API's evaluation of a typical gasoline mixture.p

## SECTION 18: EXPOSURE CONTROLS / PERSONAL PROTECTION

## OCCUPATIONAL EXPOSURE LIMITS

Recommends an 8-hour time-weighted average (TWA) exposure of 300 mg/m<sup>3</sup> (100 ppm vapour)

| EXPOSURE LIMITS<br>SUBSTANCE NAME (CAS-No.) | Source | TWA  |                   | STEL |                   |
|---|--------|------|-------------------|------|-------------------|
|   |        | ppm  | mg/m <sup>3</sup> | ppm  | mg/m <sup>3</sup> |
| GASOLENE (8006-61-9)                        | WNES   |      | 900               |      |                   |
| ETHANOL (64 - 17- 5):                       | WNES   | 1000 | 1880              |      |                   |
| XYLENE (1330-20-7)<br>o, m, p, -Isomers     | WNES   | 80   | 350               | 150  | 651               |
| TRIMETHYL BENZENE (25551-13-7)              | WNES   | 25   | 123               |      |                   |
| BUTANE (106-97-8)                           | WNES   | 800  | 1900              |      |                   |
| TOLUENE (108-88-3)                          | WNES   | 100  | 377               |      |                   |
| PENTANE (109-66-0)                          | WNES   | 600  | 1770              | 750  | 2210              |
| N-HEXANE (110-54-3)                         | WNES   | 50   | 176               |      |                   |
|   | WNES   | 500  | 1760              | 1000 | 3500              |
| ETHYL BENZENE (100-41-4)                    | WNES   | 100  | 434               | 125  | 543               |
| METHYLCYCLOHEXANE (108-87-2)                | WNES   | 400  | 1610              |      |                   |
| BENZENE (71-43-2)                           | WNES   | 5    | 16                |      |                   |

WNES = Worksafe Australia National Exposure Standard

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

## PERSONAL PROTECTION

|                                |   |
|--------------------------------|---|
| <b>Ventilation:</b>            | Ventilation equipment must be explosion proof.  |
| <b>Respiratory Protection:</b> | Approved respiratory equipment must be used when airborne concentrations are unknown or exceed the recommended exposure limit. Self-contained breathing apparatus may be required for use in confined or enclosed spaces. |
| <b>Eye Protection:</b>         | If splash with liquid is possible, chemical type goggles should be worn.  |
| <b>Skin Protection:</b>        | Impervious gloves should be worn. Good personal hygiene practices should always be followed.  |

**INJECTION INJURY WARNING:** 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.

## SECTION 19: OTHER INFORMATION

### USE: UNLEADED MOTOR FUEL

NOTE: Just Fuel Petroleum PRODUCTS ARE NOT FORMULATED TO CONTAIN PCBS.

Health studies have shown that many hydrocarbons pose potential human health risks which may vary from person to person. Information provided on this MSDS reflects intended use. This product should not be used for other applications. In any case, the following advice should be considered:

**INJECTION INJURY WARNING:** 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.

**For further information on this product, please contact:**

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## AUTHORISATION

Second Issue

Authorised by: Operations Manager – Just Fuel Petroleum

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