



Race Fuels Pty Ltd
Product: ELF RACE 102
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SAFETY DATA SHEET

SECTION 1 – IDENTIFICATION OF MATERIAL AND SUPPLIER

SUPPLIER:	Race Fuels Pty Ltd.
ABN:	23 090 961 265
ADDRESS:	37-41 Mark Anthony Drive, Dandenong South, VIC 3175, Australia.
TELEPHONE:	(03) 9706 5233.
AH EMERGENCY TELEPHONE:	13 1126 (Poisons Information Centre).
WEB PAGE:	www.racefuels.com.au
MANUFACTURER:	Total Additives and Special Fuels.
ADDRESS:	3 Place du Bassin, Givors, 69700, France.
TELEPHONE:	+33 4 72 49 27 00 (International).
AH EMERGENCY TELEPHONE:	+44 1235 239670 (United Kingdom 24-hour number).
FAX	+33 4 78 07 92 49 (International).
WEB PAGE:	www.total.com
Product Name:	ELF RACE 102.
Proper Shipping Name:	GASOLINE.
Product Use:	Racing fuel for use in Motorsports.
Manufacturer's Product Code:	Not applicable.
Creation Date:	9 June 2020.
Revision Date:	Before 8 June 2025.

SECTION 2 – HAZARDS IDENTIFICATION

This product is **classified** as a HAZARDOUS CHEMICAL in accordance with the WHS, and is **classified** as HAZARDOUS in accordance with the GHS and is **classified** as DANGEROUS GOODS according to the Australian Dangerous Goods (ADG) Code.

Hazardous Classes & Categories:

Physical:	Flammable liquids.	Category 1.
Health:	Skin corrosion/irritation.	Category 2.
	Serious eye damage/eye irritation.	Category 1.
	Germ Cell Mutagenicity.	Category 1B.
	Carcinogenicity.	Category 1B.
	Toxic to Reproduction.	Category 2.
	Specific target organ toxicity (single exposure).	Category 2.
	Specific target organ toxicity (repeated exposure).	Category 2.
	Aspiration hazard.	Category 1.
Environmental:	Acute hazard to the aquatic environment.	Category 2.
	Chronic hazard to the aquatic environment.	Category 2.
Signal Word:	DANGER.	



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SECTION 2 – HAZARDS IDENTIFICATION (CONTINUED)

Hazard Statements:	Extremely flammable liquid and vapour. Causes skin irritation. Causes serious eye damage. May cause genetic defects. May cause cancer. Suspected of damaging fertility or the unborn child. May cause damage to organs. May cause damage to organs through prolonged or repeated exposure. May be fatal if swallowed and enters airways. Toxic to aquatic life with long lasting effects.
Precautionary Statements:	
Prevention:	Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. Keep container tightly closed. Ground/bond container and receiving equipment. Use explosion-proof electrical/ventilating/lighting/equipment. Use only non-sparking tools. Take precautionary measures against static discharge. Do not breathe dust/mist/vapours. Wash skin thoroughly after handling. Do not eat, drink or smoke when using this product. Avoid release to the environment. Wear protective gloves/protective clothing/eye protection/face protection. Use personal protective equipment as required.
Response:	IF SWALLOWED: Immediately call a POISON CENTRE or doctor/physician. Do NOT induce vomiting. IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower. Wash with plenty of soap and water. IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Immediately call a POISON CENTRE or doctor/physician. IF exposed or concerned or if you feel unwell: Call a POISON CENTRE or doctor/physician. If skin irritation occurs: Get medical advice/attention. Take off contaminated clothing and wash before reuse. In case of fire: Use normal foam for extinction. Collect spillage.
Storage:	Store locked up in a well-ventilated place. Keep cool.
Disposal	Dispose of contents and container to appropriate waste site or reclaimer in accordance with local and national regulations.



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SECTION 2 – HAZARDS IDENTIFICATION (CONTINUED)

General:

If medical advice is needed, have product container or label at hand.
Keep out of reach of children.
Read label before use.

Pictogram:



Pictogram Description:

Flame

Corrosion

Health hazard

Environment

Other Hazards which do not result in Classification:

The product has ototoxic properties due to the presence of Ethanol, Ethylbenzene, n-Heptane, n-Hexane, Xylenes and Toluene (which can be absorbed through the skin) as components.

SECTION 3 – COMPOSITION / INFORMATION ON INGREDIENTS

Ingredients:	CAS Number:	Proportion:
Gasoline	86290-81-5	50 - 75 % w/w
Benzene, methyl- (Toluene)	108-88-3	25 - 50 % w/w
Propane, 2-methoxy-2-methyl (tert-Butyl methyl ether)	1634-04-4	10 - <30 % w/w
Alkane, ethoxy-methyl-	Confidential	10 - <30 % w/w
2-Propanol, 2-methyl- (tert-Butanol)	75-65-0	<10 % w/w
1-Propanol, 2-methyl- (Isobutanol)	78-83-1	<10 % w/w
Benzene, dimethyl- (Xylene (mixed isomers o, m, p))	1330-20-7	<10 % w/w
Butane, 2-methyl- (2-Methylbutane)	78-78-4	<10 % w/w
2-Propanol (Isopropanol)	67-63-0	<10 % w/w
Benzene, ethyl- (Ethylbenzene)	100-41-4	<10 % w/w
Benzene, 1,2,4-trimethyl- (1,2,4-trimethylbenzene)	95-63-6	<10 % w/w
Pentane	109-66-0	<10 % w/w
Hexane (n-Hexane)	110-54-3	<10 % w/w
Benzene, 1,3,5-trimethyl- (1,3,5-Trimethylbenzene)	108-67-8	<1 % w/w
Ethanol	64-17-5	<1 % w/w
Cyclohexane	110-82-7	<1 % w/w
Heptane (n-Heptane)	142-82-5	<1 % w/w
Benzene, 1,2,3-trimethyl- (1,2,3-Trimethylbenzene)	526-73-8	<1 % w/w
Benzene	71-43-2	<1 % w/w
Benzene, propyl- (Propyl benzene)	103-65-1	<1 % w/w
Total		100 % w/w



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SECTION 4 – FIRST AID MEASURES

General information:	IN CASE OF SERIOUS OR PERSISTENT CONDITIONS, CALL A DOCTOR OR EMERGENCY MEDICAL CARE. Show this safety data sheet to the doctor in attendance.
Scheduled Poisons:	Poisons Information Centre in each Australian State capital city can provide additional assistance for scheduled poisons. (Phone Australia 13 1126) or a doctor (at once).
First Aid Facilities Required:	Eye wash fountains and a general washing facility should be easily accessible in the immediate work area.
Inhalation:	If inhaled: Remove victim to fresh air and keep at rest in a position comfortable for breathing. Inhalation of high concentrations of vapour or aerosols may cause irritation of the upper respiratory tract. If not breathing, give artificial respiration. Call a physician immediately.
Skin Contact:	Wash off immediately with soap and plenty of water while removing all contaminated clothes and shoes. Wash contaminated clothing before reuse.
Eye Contact:	If in eyes, hold eyelids apart and flush the eye continuously with running water. Continue flushing until advised to stop by the Poisons Information Centre or a doctor, or for at least 15 minutes. Seek medical attention immediately.
Ingestion (Swallowed):	Call a Poison Centre or doctor/physician if exposed or you feel unwell. Clean mouth with water. Never give anything by mouth to an unconscious person. Do not induce vomiting without medical advice. Smallest quantities reaching the lungs through swallowing or subsequent vomiting may result in lung oedema or pneumonia.
Protection of First-aiders:	Do not use mouth-to-mouth method if victim ingested or inhaled the substance; induce artificial respiration with the aid of a pocket mask equipped with a one-way valve or other proper respiratory medical device.
Advice to Doctor:	No specific antidote. Treat symptomatically. Poisons Information Centre in each Australian State capital city can provide additional assistance for scheduled poisons.

SECTION 5 – FIRE FIGHTING MEASURES

Hazards from Combustion Products:	Product is classified as extremely flammable liquid and vapour. Vapours may form explosive mixtures with air. Most vapours are heavier than air. They will spread along ground and collect in low or confined areas (sewers, basements, tanks). Flash back is possible over considerable distance. Incomplete combustion and thermolysis may produce gases of varying toxicity such as carbon monoxide (CO), carbon dioxide (CO ₂), various hydrocarbons, aldehydes and soot. These may be highly dangerous if inhaled in confined spaces or at high concentration.
Suitable Extinguishing Media:	Dry chemical, carbon dioxide (CO ₂), normal foam. Cool containers/ tanks with water spray or regular foam.
Unsuitable Extinguishing Media:	Do not use a solid water stream as it may scatter and spread fire.



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SECTION 5 – FIRE FIGHTING MEASURES (CONTINUED)

Precautions for Fire Fighting:

In case of a large fire or in confined or poorly ventilated spaces, wear full fire-resistant protective clothing and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode. Heating can cause expansion or decomposition of the material which can lead to the container(s) exploding. Cool down any tanks and surfaces exposed to fire by spraying abundantly with water. Use water to cool tanks and parts exposed to the thermal flux not caught up in the flames. Do not allow run-off from fire-fighting to enter drains or water courses. Fire residues and contaminated fire extinguishing water must be disposed of in accordance with local regulations. If safe to do so, remove container(s) from the path of the fire if it can be done without risk. Do not scatter spilled material with high-pressure water streams. Dyke for later disposal. Use extinguishing agents for surrounding fire. Avoid inhalation of material or combustion by-products. Stay upwind and keep out of low areas.

Hazchem Code:

3YE.

AERGB:

128.

Flash Point:

< -30°C.

Flammability:

Product is classified as extremely flammable liquid and vapour. Incomplete combustion and thermolysis may produce gases of varying toxicity such as carbon monoxide (CO), carbon dioxide (CO₂), various hydrocarbons, aldehydes and soot. These may be highly dangerous if inhaled in confined spaces or at high concentration.

SECTION 6 – ACCIDENTAL RELEASE MEASURES

Personal Precautions, Protective Equipment and Emergency Procedures:

Procedures:

General Information:

Except in case of small spillages, the feasibility of any actions should always be assessed and advised, if possible, by a trained, competent person in charge of managing the emergency. If required, notify relevant authorities according to all applicable regulations. Evacuate non-essential personnel. For personal protection see section 8. Stop or contain leak at the source, if safe to do so. Cut off the electric power supply if this operation causes no sparks in the area containing vapours from the product. Stay upwind. In case of large spillages, alert occupants in downwind areas. ELIMINATE all ignition sources (no smoking, flares, sparks or flames in immediate area). Take precautionary measures against static discharges. In case of important spillages: risk of fire or explosion. Cover discharges with foam in order to reduce the risks of ignition. Vapours are heavier than air and may spread near ground level to sources of ignition. Ensure adequate ventilation.

Advice for non-emergency personnel:

Do not touch or walk through spilled material. For personal protection see section 8. ELIMINATE all ignition sources (no smoking, flares, sparks or flames in immediate area).



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SECTION 6 – ACCIDENTAL RELEASE MEASURES (CONTINUED)

Advice for emergency responders:	<p>Take all appropriate steps to avoid fire, explosion and inhalation hazards to the rescuers including the use of breathing apparatus. In case of:</p> <ul style="list-style-type: none">• Small spillages: normal antistatic working clothes are usually adequate.• Large spillages: full body suit of chemically resistant and antistatic material. Work gloves (preferably gauntlets) providing adequate chemical resistance. Remarks: Gloves made of PVA are not water-resistant, and are not suitable for emergency use. Work helmet. Antistatic non-skid safety shoes or boots. Goggles and/or face shield, if splashes or contact with eyes is possible or anticipated. Respiratory protection. A half or full-face respirator with filter(s) for organic vapours (and when applicable: for H₂S). A Self-Contained Breathing Apparatus (SCBA) can be used according to the extent of spill and predictable amount of exposure. If the situation cannot be completely assessed, or if an oxygen deficiency is possible, only SCBAs should be used.
Environmental Precautions:	<p>Do not flush into surface water or sanitary sewer system. Do not allow material to contaminate ground water system. Local authorities should be advised if significant spillages cannot be contained. Try to prevent the material from entering drains or water courses. Prevention of fire and explosion. A vapour-suppressing foam may be used to reduce vapours. Most vapours are heavier than air. They will spread along ground and collect in low or confined areas (sewers, basements, tanks). Beware of vapours accumulating to form explosive concentrations. Vapours can accumulate in low areas.</p>
Methods and Materials for Containment and Cleaning up/ Removing:	<p>Dam up. Absorb spill with inert material (e.g. dry sand or earth), then place in a chemical waste container. Ground and bond containers when transferring material. Contain spillage, and then collect with non-combustible absorbent material, (e.g. sand, earth, diatomaceous earth, vermiculite) and place in labelled container for disposal according to local / national regulations (see section 13). Keep in suitable, closed containers for disposal. Use clean non-sparking tools to collect absorbed material. The waste material can be disposed of by incineration (preferably high temperature) by an approved agent according to local conditions.</p>
Reference to Other Sections:	<p>See Section 7 for information on safe handling; See Section 8 for information on personal protection equipment; See Section 13 for information on disposal.</p>
Other Information:	<p>Recommended measures are based on the most likely spillage scenarios for this material. However, local conditions (wind, air temperature, wave/current direction and speed) may significantly influence the choice of appropriate actions. For this reason, local experts should be consulted when necessary. Local regulations may also prescribe or limit actions to be taken.</p>



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SECTION 7 – HANDLING AND STORAGE

Precautions for Safe Handling:

Advice on Safe Handling:

Avoid contact with skin, eyes and clothing. Prevent the formation of vapours, mists and aerosols. Wear personal protective equipment. Do not eat, drink or smoke when using this product. There is a hazard associated with rags, paper or any other material used to remove spills which become soaked with product. Avoid accumulation of these: they are to be disposed of safely after use. Avoid static electricity build up with connection to earth. Use only in area provided with appropriate exhaust ventilation. To avoid ignition of vapours by static electricity discharge, all metal parts of the equipment must be grounded. Keep away from open flames, hot surfaces and sources of ignition. Take precautionary measures against static discharges. When using, do not eat, drink or smoke. For personal protection see section 8. Use only in well-ventilated areas. Do not breathe vapours or spray mist. NEVER ATTEMPT TO PRIME THE CONTAINER SIPHON BY SUCKING WITH THE MOUTH.

Technical Measures:

Ensure adequate ventilation. WHILE MOVING THE PRODUCT: To avoid ignition of vapours by static electricity discharge, all metal parts of the equipment must be grounded. Take all necessary precautions to prevent water from entering the containers, tanks, transfer lines etc.

Prevention of Fire and Explosion:

Keep away from open flames, hot surfaces and sources of ignition. Design installations (machinery and equipment) to prevent burning product from spreading (tanks, retention systems, interceptors (traps) in drainage systems). OPERATE ONLY ON COLD AND DEGASSED TANKS IN VENTILATED PREMISES (TO AVOID RISK OF EXPLOSION). Do not use compressed air for filling, discharging or handling. Empty containers may contain flammable or explosive vapours. Do not allow splash loading and ensure that the product is poured slowly, particularly at the beginning of the operation.

Hygiene Measures:

When using, do not eat, drink or smoke. Provide regular cleaning of equipment, work area and clothing. Avoid contact with skin, eyes and clothing. Wash hands before breaks and immediately after handling the product. Keep away from food, drink and animal feeding stuffs. Regular cleaning of equipment, work area and clothing is recommended. Ensure the application of strict rules of hygiene by the personnel exposed to the risk of contact with the product. Use personal protective equipment as required. Avoid breathing vapours, mist or gas. IF ON SKIN: Wash skin with soap and water. Remove contaminated clothing and shoes. Gloves must be periodically inspected and changed in case of wear, perforations or contaminations. Remove and wash contaminated clothing before re-use. Wash hands before breaks and at the end of workday. Wash hands with water as a precaution.



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SECTION 7 – HANDLING AND STORAGE (CONTINUED)

Conditions for Safe Storage, including any Incompatibilities:

Technical Measures/Storage Conditions:

Keep containers tightly closed in a dry and well-ventilated place. Keep out of reach of children. Keep away from heat and sources of ignition. Loading and unloading must be carried out at ambient temperature. Ensure all equipment is electrically grounded before beginning transfer operations. Protect from light. Keep in properly labelled containers, preferably in the original container. Otherwise reproduce all indication of the regulation label on the new container. Do not remove the hazard labels of the containers (even if they are empty). Keep away from food, drink and animal feedstuffs. Keep in a bunded area. Use only containers, seals, pipes, etc. made in a material suitable for use with aromatic hydrocarbons. Store in original container. Do not allow splash loading and ensure that the product is poured slowly, particularly at the beginning of the operation. All metal parts of the mixing and processing equipment must be earthed. Use spark-proof tools and explosion-proof equipment.

**Materials to Avoid:
Packaging Material:**

Strong oxidising agents. Strong bases.
Use only containers, seals, pipes, etc. made in a material suitable for use with aromatic hydrocarbons. Use material compatible with Ethanol.

SECTION 8 – EXPOSURE CONTROLS AND PERSONAL PROTECTION

Exposure Limits:

Workplace Exposure Standards For Airborne Contaminants (as published by Safework Australia); Occupational Exposure Standards (as published by European Union); Threshold Limit Values (as published by ACGIH):
Time-weighted Average (TWA): None established for product.
TWA for Gasoline is 300 ppm (ACGIH).
TWA for Benzene, methyl- (Toluene) is 50 ppm, 191 mg/m³ N.B. Absorption through the skin may be a significant source of exposure (Safework Australia).
TWA for Propane, 2-methoxy-2-methyl (tert-Butyl methyl ether) is 25 ppm, 92 mg/m³ (Safework Australia).
TWA for 2-Propanol, 2-methyl- (tert-Butanol) is 100 ppm, 303 mg/m³ (Safework Australia).
TWA for 1-Propanol, 2-methyl- (Isobutanol) is 50 ppm, 152 mg/m³ (Safework Australia).
TWA for Benzene, dimethyl- (Xylene (mixed isomers o, m, p)) is 80 ppm, 350 mg/m³ (Safework Australia).
TWA for Butane, 2-methyl- (2-Methylbutane) is 1000 ppm, 3000 mg/m³ (European Union).
TWA for 2-Propanol (Isopropanol) is 400 ppm, 983 mg/m³ (Safework Australia).



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SECTION 8 – EXPOSURE CONTROLS AND PERSONAL PROTECTION (CONTINUED)

Exposure Limits:

TWA for Benzene, ethyl- (Ethylbenzene) is 100 ppm, 434 mg/m³ (Safework Australia).

TWA for Benzene, 1,2,4-trimethyl- (1,2,4-trimethylbenzene) is 20 ppm, 100 mg/m³ (European Union).

TWA for Pentane is 600 ppm, 1770 mg/m³ (Safework Australia).

TWA for Hexane (n-Hexane) is 20 ppm, 72 mg/m³ (Safework Australia).

TWA for Benzene, 1,3,5-trimethyl- (1,3,5-Trimethylbenzene) is 20 ppm, 100 mg/m³ (European Union).

TWA for Ethanol is 1000 ppm, 1880 mg/m³ (Safework Australia).

TWA for Cyclohexane is 100 ppm, 350 mg/m³ (Safework Australia).

TWA for Heptane (n-Heptane) is 400 ppm, 1640 mg/m³ (Safework Australia).

TWA for Benzene, 1,2,3-trimethyl- (1,2,3-Trimethylbenzene) is 20 ppm, 100 mg/m³ (European Union).

TWA for Benzene is 1 ppm, 3.2 mg/m³ N.B. Carcinogenicity Category 1A – Known to have carcinogenic potential for humans (Safework Australia).

Short Term Exposure Limit (STEL): None established for product.

STEL for Gasoline is 500 ppm (ACGIH).

STEL for Benzene, methyl- (Toluene) is 150 ppm, 574 mg/m³ N.B. Absorption through the skin may be a significant source of exposure (Safework Australia).

STEL for Propane, 2-methoxy-2-methyl (tert-Butyl methyl ether) is 75 ppm, 275 mg/m³ (Safework Australia).

STEL for 2-Propanol, 2-methyl- (tert-Butanol) is 150 ppm, 455 mg/m³ (Safework Australia).

STEL for Benzene, dimethyl- (Xylene (mixed isomers o, m, p)) is 150 ppm, 655 mg/m³ (Safework Australia).

STEL for 2-Propanol (Isopropanol) is 500 ppm, 1230 mg/m³ (Safework Australia).

STEL for Benzene, ethyl- (Ethylbenzene) is 125 ppm, 543 mg/m³ (Safework Australia).

STEL for Pentane is 750 ppm, 2210 mg/m³ (Safework Australia).

STEL for Cyclohexane is 300 ppm, 1050 mg/m³ (Safework Australia).

STEL for Heptane (n-Heptane) is 500 ppm, 2050 mg/m³ (Safework Australia).



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SECTION 8 – EXPOSURE CONTROLS AND PERSONAL PROTECTION (CONTINUED)

Exposure Limits:

Biological Exposure Determinants: None established for product.

BEI for Benzene, methyl- (Toluene) as Toluene in blood is 0.02 mg/L, to be sampled prior to last shift of workweek; and as Toluene in urine is 0.03 mg/L, to be sampled at end of shift; and as o-Cresol in urine (with hydrolysis) is 0.3 mg/g Creatinine, to be sampled at end of shift (Background determinant) (ACGIH).

BEI for Benzene, dimethyl- (Xylene (mixed isomers o, m, p)) as Methylhippuric Acids in urine is 1.5 g/g Creatinine, to be sampled at end of shift (ACGIH).

BEI for 2-Propanol (Isopropanol) as Acetone in urine is 40 mg/L, to be sampled at end of shift at end of workweek (Background determinant, Non-specific determinant) (ACGIH).

BEI for Ethyl Benzene as sum of Mandelic Acid and Phenylglyoxylic Acid in urine is 0.7 g/g Creatinine, to be sampled at end of shift at end of workweek (Non-specific determinant, Semi-quantitative determinant); and as Ethyl Benzene in end-exhaled air is to be sampled at any time (Semi-quantitative determinant) (ACGIH).

BEI for Hexane (n-Hexane) is 0.4 mg/L as 2,5-Hexanedione in urine (without hydrolysis) is 0.4 mg/L, to be sampled at end of shift at end of workweek (ACGIH).

BEI for Benzene as S-Phenylmercapturic Acid in urine is 25 µg/g Creatinine, to be sampled at end of shift; and as t,t-Muconic Acid in urine is 500 µg/g Creatinine, to be sampled at end of shift (ACGIH).

Engineering Controls:

Apply technical measures to comply with the occupational exposure limits. When working in confined spaces (tanks, containers, etc.), ensure that there is a supply of air suitable for breathing and wear the recommended equipment.

Personal Protection:

General protective & hygiene measures: The usual precautionary measures are to be adhered to when handling chemicals. Keep away from foodstuffs, beverages and feed. Immediately remove all soiled and contaminated clothing. Wash hands before breaks and at the end of work. Avoid contact with the eyes and skin.

Eye and face protection: The use of face shields, chemical goggles, or safety glasses with side shield protection (meeting the requirements of AS/NZS 1337) is recommended.

Skin protection:

Hand protection: Hydrocarbon-proof gloves for aromatic hydrocarbons, (e.g. Nitrile, Viton/Polychloroprene gloves complying with AS/NZS 2161) are recommended. Please observe the instructions regarding permeability and breakthrough time which are provided by the supplier of the gloves. Also take into consideration the specific local conditions under which the product is used, such as the danger of cuts, abrasion, and the contact time.

Clothing: Suitable protective clothing complying with AS/NZS 4501, suitable footwear complying with AS/NZS 2210 are recommended.



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SECTION 8 – EXPOSURE CONTROLS AND PERSONAL PROTECTION (CONTINUED)

Respiratory protective equipment: When the product is used in case of inadequate ventilation and/or when aerosol or mist is formed, use a full-face air purifying respirator (with Class AX filter for low boiling point organic vapours - boiling below 65°C) meeting the requirements of AS/NZS 1715 and AS/NZS 1716. The use of breathing apparatus must comply strictly with the manufacturer's instructions and the regulations governing their choices and uses.

SECTION 9 – PHYSICAL AND CHEMICAL PROPERTIES

Physical Description/ Properties:

Appearance:	Low viscosity transparent colourless liquid.
Odour:	Petroleum distillates.
Odour Threshold:	Not available.
pH:	Not applicable.
Melting Point/ Freezing Point:	Not available.
Initial Boiling Point/ Boiling Range:	35 - 170°C @ 760 mm Hg.
Flashpoint:	< -30°C.
Evaporation Rate:	Not available.
Flammability (solid, gas):	Not applicable.
Upper/Lower Flammability or Explosive Limits:	Not available.
Vapour Pressure:	45 kPa @ 37.8°C.
Vapour Density:	> 1 (Air = 1).
Relative Density:	Ca. 0.76 @ 15°C.
Solubility:	Slightly soluble in water.
Partition coefficient: n-octanol/water:	Not available.
Auto-ignition Temperature:	> 230°C.
Decomposition Temperature:	Not applicable.
Viscosity:	< 1 mPa s @ 40°C.
Volatile Organic Compounds (VOC) Content:	100 % w/w.
Per Cent Volatile:	100 % w/w.
Conductivity:	> 1 pS/m.



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SECTION 10 – STABILITY AND REACTIVITY

Reactivity:	No further relevant information available.
Chemical Stability:	Stable under recommended storage conditions at normal temperatures and pressure.
Thermal Decomposition:	No decomposition if used according to specifications.
Dangerous Reactions:	None under normal processing.
Conditions to Avoid:	Heat, flames and sparks. Take precautionary measures against static discharges. Heating in air.
Materials to Avoid:	Strong oxidising agents. Strong bases.
Hazardous Decomposition Products:	None under normal use. Incomplete combustion and thermolysis may produce gases of varying toxicity such as carbon monoxide (CO), carbon dioxide (CO ₂), various hydrocarbons, aldehydes and soot.

SECTION 11 – TOXICOLOGICAL INFORMATION

Health Effects:	
Acute Toxicity Data (Oral):	No data for product, following data is compiled on basis of ingredients: Acute Toxicity for Gasoline, LD ₅₀ (Oral) 500 mg/kg (ATE, Category 4). Acute Toxicity for Benzene, methyl- (Toluene), LD ₅₀ (Oral, rat) = 5,580 mg/kg. Acute Toxicity for Propane, 2-methoxy-2-methyl (tert-Butyl methyl ether), LD ₅₀ (Oral, rat) = 4,000 mg/kg.
Acute Toxicity Data (Dermal):	No data for product, following data is compiled on basis of ingredients: Acute Toxicity for Gasoline, LD ₅₀ (Dermal) 1,100 mg/kg (ATE, Category 4). Acute Toxicity for Benzene, methyl- (Toluene), LD ₅₀ (Dermal, rabbit) > 5,000 mg/kg. Acute Toxicity for Propane, 2-methoxy-2-methyl (tert-Butyl methyl ether), LD ₅₀ (Dermal, rat) > 2,000 mg/kg; LD ₅₀ (Dermal, rabbit) > 10,000 mg/kg.
Acute Toxicity Data (Inhalation):	No data for product, following data is compiled on basis of ingredients: Acute Toxicity for Gasoline, LC ₅₀ (Inhalation, rat) 11 mg/L (ATE, Category 4). Acute Toxicity for Benzene, methyl- (Toluene), LC ₅₀ (Inhalation, rat) = 28.1 mg/L. Acute Toxicity for Propane, 2-methoxy-2-methyl (tert-Butyl methyl ether), LC ₅₀ (Inhalation, rat) = 23576 ppm/4 h (85 mg/L/4 h).
Chronic Toxicity Data:	No evidence of adverse effects to repeated exposure from available information.
Skin Corrosion Irritation:	Product is classified as Skin corrosion/irritation, Category 2, Causes skin irritation.
Serious Eye Damage/Irritation:	Product is classified as Serious eye damage/irritation, Category 1, Causes serious eye damage.
Respiratory or Skin Sensitisation:	Product is not classified as a sensitiser based on current toxicological knowledge.
Germ Cell Mutagenicity:	Product is classified as Germ Cell Mutagenicity, Category 1B, May cause genetic defects.



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SECTION 11 – TOXICOLOGICAL INFORMATION (CONTINUED)

Carcinogenicity:	Product is classified as Carcinogenicity, Category 1B, May cause cancer. Gasoline is listed by IARC as possibly carcinogenic to humans (Group 2B). Benzene, ethyl- (Ethylbenzene) is listed by IARC as possibly carcinogenic to humans (Group 2B). Benzene is listed by IARC as Carcinogenic to humans (Group 1).
Reproductive Toxicity:	Product is classified as Toxic to Reproduction, Category 2, Suspected of damaging fertility or the unborn child.
Specific Target Organ Toxicity (STOT) – Single Exposure:	Product is classified as Specific target organ toxicity (single exposure), Category 2, May cause damage to organs.
Specific Target Organ Toxicity (STOT) – Repeated Exposure:	Product is classified as Specific target organ toxicity (repeated exposure), Category 2, May cause damage to organs through prolonged or repeated exposure.
Aspiration Hazard:	Product is classified as Aspiration hazard, Category 1, May be fatal if swallowed and enters airways.
Information on Possible Routes of Exposure:	Eyes, skin, mouth.
Ingestion (Swallowing):	Ingestion may cause gastrointestinal irritation, nausea, vomiting and diarrhoea.
Eye Contact:	Causes serious eye damage.
Skin Contact:	Reddening, irritation, may defat skin.
Inhalation:	Inhalation of vapours may cause headache, nausea, vomiting and an altered state of consciousness.
Other Health Effects:	No information available.

SECTION 12 – ECOLOGICAL INFORMATION

Ecotoxicity:	This product is classified as Hazardous to the aquatic environment — Acute Hazard, Hazard Category 2, Toxic to aquatic life and Hazardous to the aquatic environment — Chronic Hazard, Hazard Category 2, Toxic to aquatic life with long lasting effects. (according to GHS) and Environmentally hazardous substance, Acute 2 and Environmentally hazardous substance, Chronic 2 (according to the ADG Code).
Fish Toxicity:	No data for product, following data is compiled on basis of ingredients: Acute Toxicity for Gasoline, $LC_{50} > 8.2$ mg/L/96 h (Fish). Acute Toxicity for Toluene, $LC_{50} = 5.5$ mg/L/96 h (Coho salmon, <i>Oncorhynchus kisutch</i>). Chronic Toxicity for Toluene, $NOEC = 1.39$ mg/L/40 d (Coho salmon, <i>Oncorhynchus kisutch</i>); $NOEC = 2.77$ mg/L/40 d (Coho salmon, <i>Oncorhynchus kisutch</i>). Acute Toxicity for Propane, 2-methoxy-2-methyl (tert-Butyl methyl ether), $LC_{50} = 672$ mg/L/96 h (Fathead minnow, <i>Pimephales promelas</i> , flow-through test); $LC_{50} > 100$ mg/L/96 h ((Zebra fish, <i>Danio rerio</i> , semi-static test); $LC_{50} = 929$ mg/L/96 h (Fathead minnow, <i>Pimephales promelas</i> , static test); $LC_{50} = 887$ mg/L/96 h (Rainbow trout, <i>Oncorhynchus mykiss</i> , flow-through test).



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SECTION 12 – ECOLOGICAL INFORMATION (CONTINUED)

Invertebrates Toxicity:	No data for product, following data is compiled on basis of ingredients: Acute Toxicity for Gasoline, EC ₅₀ > 4.5 mg/L/48 h (Water flea, Daphnia magna). Acute Toxicity for Toluene, EC ₅₀ = 3.78 mg/L/48 h (Water flea, Daphnia magna). Chronic Toxicity for Toluene, NOEC = 0.74 mg/L/7 d (Water flea, Ceriodaphnia dubia); EC ₅₀ = 3.23 mg/L/7 d (Water flea, Ceriodaphnia dubia); LOEC = 2.76 mg/L/7 d (Water flea, Ceriodaphnia dubia). Acute Toxicity for Propane, 2-methoxy-2-methyl (tert-Butyl methyl ether), EC ₅₀ = 542 mg/L/48 h (Water flea, Daphnia magna).
Algae Toxicity:	No data for product, following data is compiled on basis of ingredients: Acute Toxicity for Gasoline, LC ₅₀ > 3.1 mg/L/72 h (Algae). Acute Toxicity for Toluene, EC ₅₀ = 134 mg/L/3 h (Green algae, Chlorella vulgaris). Chronic Toxicity for Toluene, NOEC = 10 mg/L/72 h (Skeletonema costatum). Acute Toxicity for Propane, 2-methoxy-2-methyl (tert-Butyl methyl ether), EC ₅₀ > 800 mg/L/72 h (Freshwater Algae, Desmodesmus Subspicatus); EC ₅₀ = 184 mg/L/96 h (Freshwater Green Algae, Pseudokirchneriella subcapitata).
Toxicity to Microorganisms:	No data for product.
OECD Biological Degradation:	No information available.
Information about Elimination (Persistence & Degradability):	No information available.
Mobility in Soil:	Given its physical and chemical characteristics, the product is generally mobile in the ground. It may contaminate ground water.
Mobility in Air:	The product evaporates in the air and dissipates more or less depending on local conditions. However, it may stagnate in pools in low-lying areas, in an undisturbed or confined atmosphere.
Mobility in Water:	The product spreads on the surface of the water. A small amount may solubilise in water.
Behaviour in Sewage Processing Plants:	No information available.
General:	DO NOT DISCHARGE INTO DRAINS, WATERWAYS, SEWER OR ENVIRONMENT. Product is slightly soluble in water. Do not allow undiluted product or large quantities of it to reach ground water, water course or sewage system. Inform local authorities if this occurs.



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SECTION 13 – DISPOSAL CONSIDERATIONS

Product:	Should not be released into the environment. Recommended to be handed over to hazardous waste disposers or licensed chemical waste collection agent and adhering to the applicable local, state and national regulations.
Uncleaned Packaging:	Empty containers may contain flammable or explosive vapours. Do not burn or use a cutting torch on the empty drum. Empty containers should be taken to an approved waste handling site for recycling or disposal.
Other information	Refer to section 8 for safety and protective measures for disposal personnel.

SECTION 14 – TRANSPORT INFORMATION

Road & Rail Transport:	This material is classified as DANGEROUS GOODS, according to the Australian Code for the Transport of Dangerous Goods by Road and Rail (ADG Code).
UN Number:	1203
UN Proper Shipping Name or Technical Name:	GASOLINE
ADG Class:	3.
Packing Group:	II.
HAZCHEM Code:	3YE.
AERGB:	128.
Marine Transport:	This material is classified as DANGEROUS GOODS and as a MARINE POLLUTANT by the criteria of the International Maritime Dangerous Goods Code (IMDG Code) for transport by sea.
UN Number:	1203
UN Proper Shipping Name or Technical Name:	GASOLINE
IMDG Class:	3.
Packing Group:	II.
Air Transport:	This material is classified as DANGEROUS GOODS, by the criteria of the International Air Transport Association (IATA) Dangerous Goods Regulations for transport by air.
UN Number:	1203
UN Proper Shipping Name or Technical Name:	GASOLINE
IATA Class:	3.
Packing Group:	II.

Class Label:





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SECTION 15 – REGULATORY INFORMATION

Australian Standards:	<p>AS/NZS 1337.1:2010: Personal eye protection - Eye and face protectors for occupational applications.</p> <p>AS/NZS 1715:2009: Selection, use and maintenance of respiratory protective equipment.</p> <p>AS/NZS 1716:2012: Respiratory protective devices.</p> <p>AS 1940:2017: The storage and handling of flammable and combustible liquids.</p> <p>AS/NZS 2161.1:2000: Occupational protective gloves: Selection, use and maintenance.</p> <p>AS/NZS 2161.2:2005: Occupational protective gloves: General requirements.</p> <p>AS/NZS 2161.10.1:2005: Occupational protective gloves: Protective gloves against chemicals and micro-organisms —Terminology and performance requirements.</p> <p>AS/NZS 2161.10.2:2005: Occupational protective gloves: Protective gloves against chemicals and micro-organisms—Determination of resistance to penetration.</p> <p>AS/NZS 2161.10.3:2005: Occupational protective gloves: Protective gloves against chemicals and micro-organisms—Determination of resistance to permeation by chemicals.</p> <p>AS/NZS 2210.1:2010: Safety, protective and occupational footwear - Guide to selection, care and use.</p> <p>AS/NZS 2210.2:2009: Occupational protective footwear - Test methods (ISO 20344:2004, MOD).</p> <p>AS/NZS 2210.4:2009: Occupational protective footwear - Specification for protective footwear (ISO 20346:2004, MOD).</p> <p>AS/NZS 4501.1:2008: Occupational protective clothing - Guidelines on the selection, use, care and maintenance of protective clothing.</p> <p>AS/NZS 4501.2:2006: Occupational protective clothing - General requirements.</p>
NICNAS:	All ingredients present on AICS, except for notified chemical.
SUSMP:	Schedule Number S5 allocated.



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SECTION 16 – OTHER INFORMATION

Acronyms and Comments:

ACGIH:	American Conference of Industrial Hygienists.
ADG Code:	Australian Code for the Transport of Dangerous Goods by Road and Rail.
AERGB:	Australian Emergency Response Guide Book (2018).
AICS:	Australian Inventory of Chemical Substances.
APVMA:	Australian Pesticides and Veterinary Medicines Authority.
AS:	Standards issued by Standards Australia, GPO Box 476, Sydney NSW 2001, Australia.
AS/NZ:	Standards issued by Standards Australia, GPO Box 476, Sydney NSW 2001, Australia and Standards New Zealand, Private Bag 2439 Wellington 6140, New Zealand.
ATE:	Acute Toxicity Estimate according to the Globally Harmonized System of Classification and Labelling of Chemicals (GHS).
BEI:	Biological Exposure Indices published by the American Conference of Governmental Industrial Hygienists (ACGIH), 1330 Kemper Meadow Drive, Cincinnati, OH 45240-4148, USA.
CAS Number:	Chemical Abstracts Service Registry Number.
GHS:	Globally Harmonized System of Classification and Labelling of Chemicals, a globally harmonised system for classification and labelling of chemicals proposed by the United Nations.
HAZCHEM:	An emergency action code of numbers and letters which gives information to emergency services.
IARC:	International Agency for Research on Cancer.
IMDG:	International Maritime Dangerous Goods Code for transport by sea.
LC/LD:	The median lethal dose, LD ₅₀ (abbreviation for "lethal dose, 50%"), LC ₅₀ (lethal concentration, 50%) is the dose required to kill half the members of a tested population after a specified test duration. LD ₅₀ figures are frequently used as a general indicator of a substance's acute toxicity.
NICNAS:	National Industrial Chemicals Notification and Assessment Scheme.
NTP:	National Toxicology Program (USA Department of Health and Human Services).
OSHA:	Occupational Safety and Health Administration (USA).
PPE:	Personal Protective Equipment.
Safe Work Australia:	Safe Work Australia was formerly the Australian Safety and Compensation Council, which included the National Occupational Health and Safety Commission (NOHSC).
SDS:	Safety Data Sheet.
STEL:	Exposure standard - short term exposure limit, a 15-minute TWA exposure which should not be exceeded at any time during a working day even if the eight-hour TWA average is within the TWA exposure standard. Exposures at the STEL should not be longer than 15 minutes and should not be repeated more than four times per day. There should be at least 60 minutes between successive exposures at the STEL. According to current knowledge this concentration should neither impair the health of, nor cause undue discomfort to, nearly all workers.
SUSMP:	Standard for the Uniform Scheduling of Medicines and Poisons.



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TDL₀:	Total Dose Low means the smallest deadly dose, which caused a toxic or other harmful effect after application on humans or animal.
TWA:	Exposure standard - time-weighted average, the average airborne concentration of a particular substance when calculated over a normal eight hour working day, for a five-day working week.
UK HSE:	United Kingdom Health and Safety Executive.
UN Number:	United Nations Number.
WHS:	Model work health and safety legislation introduced by the Australian government which consists of an integrated package of a model Work Health and Safety (WHS) Act, supported by model Work Health and Safety (WHS) Regulations, model Codes of Practice and a National Compliance and Enforcement Policy. The WHS Regulations implement a new system of chemical hazard classification, labelling and safety data sheet requirements based on the GHS.
Issue Date:	9 June 2020.
Supersedes Issue Date:	Not applicable.
Revision Information:	New issue.
Contact Point:	Regulatory Affairs Manager.
Telephone:	(03) 9706 5233.
Note:	Safety Data Sheets are updated frequently. Please ensure that you have a current copy.
Disclaimer:	This SDS summarises at the date of issue our best knowledge of the health and safety hazard information of this product, and in particular how to safely handle and use this product in the workplace. Since Race Fuels Pty Ltd cannot anticipate or control the conditions under which the product may be used, each user must, prior to usage, review this SDS in the context of how the user intends to handle and use the product in the workplace. This SDS does not represent a guarantee for the properties of the product(s) described in terms of the legal warranty regulations. If clarification or further information is needed to ensure that an appropriate assessment can be made, the user should contact this company.