SAFETY DATA SHEET

Section 1. Identification

Product Identifier:	Model Engine Fuel for use in hobby engines
Other means of identification:	Proper Shipping name: FLAMMABLE LIQUID, TOXIC, N.O.S Product code: **As per customer blend**
Recommended use of the chemical and restrictions on use:	Engine fuel, for use in model planes, cars, helicopters.
Details of manufacturer or importer:	Ozzie Traders Pacific Group P/L 15 Mc Pherson Street Maddingley, 3340, Victoria, Australia
Telephone Number:	(03) 5367 1519 (Email) oztrade.au@gmail.com
Emergency Telephone number:	24 hours +61 412017773

Section 2: Hazards Identification

Classified as Dangerous Goods by the criteria of the Australian Dangerous Goods Code (ADG Code) for transport by Road and Rail: DANGEROUS GOODS.

Based on available information, classified as hazardous according to Safe Work Australia: HAZARDOUS CHEMICAL.

Flammable liquid – Category 2, H225
Acute toxicity, Oral (Category 3), H301
Acute toxicity, Inhalation (Category 3), H331
Acute toxicity, Dermal (Category 3), H311
Specific target organ toxicity - single exposure (Category 1), H370

Signal Word: Danger

Hazard Statements:

H225: Highly Flammable liquid and vapour.
H301:Toxic if swallowed
H311: Toxic in contact with skin
H331: Toxic if inhaled
H370: Causes damage to organs (Eyes).

Precautionary statements:

Prevention

P210:Keep away from heat/sparks/open flames/hot surfaces. - No smoking.
P233: Keep container tightly closed.
P240: Ground/bond container and receiving equipment.
P241: Use explosion-proof electrical/ventilating/lighting/process/equipment.
P242: Use only non-sparking tools.
P243: Take precautionary measures against static discharge.
P270: Do not eat, drink or smoke when using this product.
P271: Use only outdoors or in a well-ventilated area.
P260: Do not breathe dust/ fume/ gas/ mist/ vapours/ spray.
P261: Avoid breathing dust/fume/gas/mist/vapours/spray.
P264 Wash skin thoroughly after handling.
P270: Do not eat, drink or smoke when using this product.
P280 Wear protective gloves/ eye protection/ face protection.

Response

P301 + P310 + P330 IF SWALLOWED: Immediately call a POISON CENTER or doctor/physician. Rinse mouth.
P303 + P361 + P353 IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower.
P304 + P340: IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing.
P302 + P352 + P312: IF ON SKIN: Wash with plenty of soap and water. Call a POISON CENTER or doctor/physician if you feel unwell.
P308 + P311: IF exposed or concerned: Call a POISON CENTER/doctor.
P370 +P378:In case of fire: Use dry sand, dry chemical or alcohol-resistant foam to extinguish.
P321 + P322: Specific treatment and measures (Refer to section 4 of this SDS).

Storage

P403 + P235: Store in a well-ventilated place. Keep cool
P405: Store locked up.

Other hazards

None

Hazard Symbols

Flame Toxic Health hazard Warning

Section 3. Composition and information on ingredients

Chemical Identity	Synonym	CAS Number	Proportions (%w/w)
Methanol	Methyl alcohol	67-56-1	60 to 70%
Nitromethane	Nitrocarbol	75-52-5	5 to 30%
Non-Hazardous ingredients (oils)	-	-	To 100%

Section 4. First aid measures

In case of poisoning contact a doctor or Poisons Information Centre on 131 126, New Zealand 0800 764 766

Have the product label or SDS with you when calling or going for treatment.

Ingestion: Call a physician immediately. Remove to fresh air. If breathing is difficult, give oxygen. Use oxygen as required, provided a qualified person is present

Eye Contact: Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. Remove contact lenses. Call a physician.

Skin Contact: Take off all contaminated clothing immediately. Wash off immediately with plenty of water. If irritation persists, call a physician. Wash contaminated clothing before re-use.

Inhalation: Call a physician immediately. Move person to fresh air. If breathing is difficult, give oxygen. Use oxygen as required, provided a qualified operator is present.

Symptoms caused by exposure: After eye contact: Conjunctival redness of the eyes, Conjunctivitis (pink eye), Following skin contact: Has degreasing effect on the skin, After ingestion: Abdominal pain, Malaise, Vomiting, Loss of righting reflex, and ataxia, Serious physical decay of vision, Risk of blindness, Poisoning effect on central nervous system can cause convulsions, breathing difficulties and loss of consciousness, Headaches and dizziness may occur, proceeding to fainting or unconsciousness, Large doses may result in coma and death, Following inhalation: Cough

Medical attention and special treatment: Treat symptomatically
Rinse mouth immediately and drink plenty of water. Call a physician immediately.

Section 5. Firefighting measures

Suitable extinguishing equipment:
Alcohol-resistant foam. Carbon dioxide (CO2). Dry chemical.

Specific Hazards arising from the chemical:
Flammable. Vapours may form explosive mixtures with air. Vapours are heavier than air and may spread along floors. Vapours may travel to areas away from work site before igniting/flashing back to vapor source. In case of fire hazardous decomposition products may be produced such as: Carbon monoxide, Carbon dioxide (CO2) and Formaldehyde.

Special protective equipment and precautions for fire-fighters:
Wear self-contained breathing apparatus and protective suit. Use extinguishing measures that are appropriate and the surrounding environment.

Hazchem Code: 2WE

Section 6. Accidental release measures

Personal precautions, protective equipment and emergency procedures:

Wear personal protective equipment.
Immediately evacuate personnel to safe areas.
Keep people away from and upwind of spill/leak.
Ensure adequate ventilation.
Remove all sources of ignition.
Do not breathe vapours or spray mist.
Avoid contact with skin, eyes and clothing.

Environmental precautions:

Prevent further leakage or spillage if safe to do so.
Discharge into the environment must be avoided.
Do not flush into surface water or sanitary sewer system.
Do not allow run-off from firefighting to enter drains or water courses.

Methods and materials for containment and cleaning up:

Ventilate the area.
No sparking tools should be used.
Use explosion-proof equipment.
Contain spillage, soak up with non-combustible absorbent material, (e.g. sand, earth, diatomaceous earth, vermiculite) and transfer to a container for disposal according to local / national regulations (see section 13)

Section 7. Handling and storage

Precautions for safe handling:

Wear personal protective equipment.
Use only in well-ventilated areas.
Keep container tightly closed.
Do not smoke.
Do not breathe vapours or spray mist.
Avoid contact with skin, eyes and clothing

Conditions for safe storage, including any incompatibilities:

Store in area designed for storage of flammable liquids. Protect from physical damage.
Keep containers tightly closed in a dry, cool and well-ventilated place.
Containers which are opened must be carefully resealed and kept upright to prevent leakage.
Keep away from heat and sources of ignition.
Keep away from direct sunlight.
Store away from incompatible substances.
Container hazardous when empty.
Do not pressurize, cut, weld, braze, solder, drill, grind or expose containers to heat or sources of ignition.
Avoid storage with oxidizing agents, Aluminium, Magnesium, may attack many plastics, rubbers and coatings.

Section 8. Exposure controls and personal protection

Component	TWA 8h	TWA 5 days	STEL	Peak limitations (if available)
Methanol	262 mg/m^3 (200 ppm)	-	328mg/m^3 (250 ppm)	-
Nitromethane	50 mg/m3 (20 ppm)	-	-	-

Note: As published by Safe Work Australia Workplace Exposure Standards for Airborne Contaminants.
TWA - The time-weighted average airborne concentration of a substance when calculated over an eight-hour working day, for a five-day working week.
These Workplace Exposure Standards are guides to be used in the control of occupational health hazards. All atmospheric contamination should be kept to as low a level as is workable. These workplace exposure standards should not be used as clear defining points between safe and dangerous concentrations of chemicals. They are not a measure of relative toxicity.

Biological monitoring:
No biological limits allocated

Control banding:
No data available.

Engineering controls:
Use in well-ventilated areas. Use with local exhaust ventilation in all work process areas, that is suitable to operate in a hazardous area. Prevent vapour build-up by providing adequate ventilation during and after use.

Individual protection measures, for example personal protective equipment (PPE):

Eye and face protection

Do not wear contact lenses.
Wear as appropriate: Safety glasses with side-shields
If splashes are likely to occur, wear: Goggles or face shield,
giving complete protection to eyes

Skin protection
Wear as appropriate:
Solvent-resistant apron
Flame retardant antistatic protective clothing.
If splashes are likely to occur, wear:
Protective suit

Respiratory protection

In case of insufficient ventilation, wear suitable respiratory equipment.
For rescue and maintenance work in storage tanks use self-contained breathing apparatus.
Use suitable respiratory protection.

Thermal hazards

No data available

Other information.

Reference standards for (PPE).
Respiratory protection: AS/NZS 1715 and AS/NZS 1716.
Gloves: AS/NZS 2161.1.
Eye protection: AS/NZS 1336 and AS/NZS 1337

Section 9. Physical and chemical properties

Appearance	Liquid, clear, colourless
Auto-ignition temperature:	(418- 455°C)
Decomposition temperature:	Data is not available
Evaporation rate:	4.1 (n-Butyl acetate = 1)
Flammability (solid, gas):	No data available
Flash point:	24°C (Closed cup)
Initial boiling point and boiling range:	Approx. 64.5 °C @ 101.3 kPa
Melting point/freezing point	-97.7 °C
Odour:	Slight alcohol
Odour threshold:	Data is not available
Partition coefficient: n-octanol/water:	log Pow: -0.77 at 25 °C - (Lit.)
pH:	Data is not available
Relative density:	0.792 g/cm^3 at 20°C
Solubility:	Fully soluble in water
Upper/lower flammability or explosive limits:	44%(v)/ 5.5%(v)
Vapour density:	1.11-1.12 (Air =1.0)
Vapour pressure:	128 hPa at 25°C
Viscosity:	0.54-0.59 mm2/s at 20°C (Methanol)

Other physical/chemical parameters

Biodurability or biopersistence:	Data is not available
Crystallinity:	Data is not available
Degree of aggregation or agglomeration	Data is not available
and dispersibility:	Data is not available
Dustiness:	Data is not available
Particle size (average and range):	Data is not available
Redox potential:	Data is not available
Release of invisible flammable vapours and gases:	Data is not available
Saturated vapour concentration:	Data is not available
Shape and aspect ratio:	Data is not available
Size distribution:	Data is not available
Specific heat value:	Data is not available
Surface area:	Data is not available
Surface coating or chemistry:	Data is not available

Section 10. Stability and reactivity

Reactivity:	Risk of ignition. Vapours can form explosive mixture with air.

Chemical stability:	Stable under recommended storage and use conditions.
Possibility of hazardous reactions:	Violent reaction with: Alkaline earth metal, Nitric acid, Sulphuric acid, concentrated, Strong oxidiser, Hydrogen peroxide.
Conditions to avoid:	Heat, flames and sparks.
Incompatible materials:	Strong oxidizing agents, Aluminium, Magnesium Attacks some plastics, surface coatings, rubber.
Hazardous decomposition products:	Combustion or thermal decomposition will evolve toxic and irritant vapours such as carbon monoxide, carbon dioxide (CO2), formaldehyde.

Section 11. Toxicological information

Information on possible routes of exposure:

Relevant values for classification

Chemical	LD_{50}(Oral)	LC_{50}(Inhalation)	LD_{50} (Dermal)
Methanol	5,628 mg/kg (Rat)	128.2 mg/l (4h) Rat (OECD,2004)	15,800 mg/kg (Rabbit) >45000 mg/kg/ (Rat) (OECD,2004)
Nitromethane	940 to 1475 mg/kg(Rat) (OECD, 2014; REACH).	LC50 > 12.75 mg/L (Rat) 1 h (REACH)	>2000 mg/kg (Rabbit) (OECD, 2014; REACH).

Acute Health Effects

Inhalation:
Causes respiratory tract irritation with coughing, dizziness, headache, nausea and weakness.
Skin:
Causes drying of skin resulting in rough and chapped skin. The chemical is not a skin irritant
Eye:
Contact with eyes can cause slight eye irritation. Eye irritation effects are not sufficient to provide a hazard classification, as after 24 hours the effects being mild, and after several days no symptoms observed.
Ingestion:
Ingestion being the most frequent route of human poisoning, with abdominal pain, vomiting, loss of righting reflex, and poisoning effect on central nervous system can cause convulsions, laboured breathing and loss of consciousness, risk of blindness, large doses may result in coma, seizures and prolonged acidosis being the initial observed symptoms.
'Acute methanol intoxication (including acidosis and visual effects) evolves in a well-defined pattern. First, a mild depression of the CNS occurs and is followed by an asymptomatic latent period commonly lasting 12 to 14 hours. Clinical symptoms include headache, dizziness, nausea, and vomiting, abdominal pain, and laboured, periodic breathing (Kussmaul breathing) and may progress to coma and death from respiratory failure. Methanol exposure results in ocular effects ranging from

mild photophobia, misty or blurred vision to markedly reduced visual acuity and total blindness. Severe visual disturbances have been reported in workers who experienced methanol air levels of about 1.5 mg/L (1200 ml/m3) or more.' (0ECD) 2004

Skin Corrosion / Irritation:

The chemical is not a skin irritant. The irritation potential of undiluted methanol (dose not specified) in rabbits was examined under occlusive conditions after exposure intervals of 1, 5, and 15 minutes and 20 hours. According to Draize scoring, no signs of skin irritation were observed at 24 hours or on day eight after treatment, for any of the exposure time periods (OECD, 2004).

Serious Eye Damage / Irritation:

The chemical is a slight eye irritant in rabbits. Eye irritation effects were not sufficient to warrant a hazard classification.

Respiratory or Skin Sensitisation:

Based on classification principles, the classification criteria are not met.

Germ Cell Mutagenicity:

Based on classification principles, the classification criteria are not met.

Carcinogenicity:

IARC: (Methanol). No component of this product present at levels greater than or equal to 0.1% is identified as probable, possible or confirmed human carcinogen by IARC.

(Nitromethane). The chemical was classified by the IARC as 'possibly carcinogenic to humans (Group 2B)' (IARC, 2000).Until further studies can confirm.

Reproductive Toxicity: Methanol-Based on classification principles, the classification criteria are not met.

Nitromethane - Based on the limited data available, the chemical may have the potential to cause reproductive and/or developmental toxicity.

Specific Target Organ Toxicity (STOT) - Single Exposure:

Causes damage to organs. - Eyes Acute oral toxicity - Nausea, Vomiting Acute inhalation toxicity - Irritation symptoms in the respiratory tract

Specific Target Organ Toxicity (STOT) - Repeated Exposure:

No data available

Aspiration Hazard:

Based on classification principles, the classification criteria are not met.

Chronic Health Effects:

Acidosis drop in blood pressure, agitation, spasms, inebriation, Dizziness, Drowsiness, Headache, Impairment of vision, Blindness, narcosis, Coma Symptoms may be delayed. Damage to: Liver, Kidney, Cardiac, Irreversible damage of the optical nerve. Other dangerous properties cannot be excluded. This substance should be handled with particular care.

Existing Conditions Aggravated by Exposure:

Pre-existing allergies, eye, skin and respiratory disorders.

Early onset of symptoms related to exposure:

Clinical symptoms include headache, dizziness, nausea, and vomiting, abdominal pain, and laboured, periodic breathing (Kussmaul breathing) and may progress to coma and death from respiratory failure. Methanol exposure results in ocular effects ranging from mild photophobia, misty or blurred vision to markedly reduced visual acuity and total blindness.

Delayed health effects from exposure:

Delayed or immediate effects from exposure can be expected within 24 hrs of exposure and include acute and chronic health effects.

Exposure levels and health effects:
The main critical effects to human health are acute toxicity from inhalation, in contact with skin and if swallowed, and possible irreversible effects from acute exposure.

Interactive effects:
Health effects from exposure can be worsened by taking medication or smoking. Pre-existing medical conditions such as asthma, high blood pressure or a predisposition to allergic reactions may increase risk.

Other information:
No data available

Section 12. Ecological Information

Ecotoxicity:

Chemical	Toxicity to fish:	Toxicity to and other aquatic invertebrates:	Toxicity to algae and other aquatic plants:
Methanol	Pimephales promelas (fathead minnow) LC50 = 29,400 mg/L, 96 h	*Daphnia magna* (Water flea), EC50 =10,000 mg/L, 24 h	EC50: 43,000 mg/L Exposure time: 5 min Species: Photobacterium phosphoreum
Nitromethane	LC50:>659 mg/L, 96h static (Pimephales promelas) LC50: = 460 mg/L, 48h static(Brachydanio rerio)	EC50: = >103 mg/L, 48h (Daphnia magna)	EC50: = 36 mg/L, 72h (Desmodesmus subspicatus)

Persistence and degradability: This product is readily degradable in the environment.
Bioaccumulative potential: Does not significantly accumulate in organisms.
n-octanol/water (log KOW) -0,77
Mobility in soil: Will likely be mobile in the environment due to its solubility in water. Will not absorb on soil.
Bioconcentration factor (BCF): 1.0 (Methanol)
Other adverse effects: No information available (environmental fate, ozone depletion, photochemical ozone creation potential, endocrine-disruption potential and global warming potential.)

Section 13. Disposal consideration

Disposal Methods and Containers: Dispose according to applicable local and state government regulations.

Special Precautions for Landfill or incineration:

Persons conducting disposal, recycling or reclamation activities should ensure that appropriate personal protection equipment is used, see "Section 8. Exposure Controls and Personal Protection" of this SDS.

If possible, material and its container should be recycled. If material or container cannot be recycled, dispose in accordance with local, regional national and international Regulations.

Section 14. Transport Information

ROAD AND RAIL TRANSPORT

Classified as Dangerous Goods by the criteria of the "Australian Code for the Transport of Dangerous Goods by Road & Rail. (ADG Code).

MARINE TRANSPORT

Classified as Dangerous Goods by the criteria of the International Maritime Dangerous Goods Code (IMDG Code) for transport by sea.

AIR TRANSPORT

Classified as Dangerous Goods by the criteria of the International Air Transport Association (IATA) Dangerous Goods Regulations for transport by air.

UN No: (ADG, IMDG, IATA)	1992
Proper Shipping Name: (ADG, IMDG, IATA)	FLAMMABLE LIQUID, TOXIC, N.O.S.
Dangerous Goods Class: (ADG Class)	3
Subsidiary Risk(s): (ADG)	6.1

Packing Group number: II
(ADG, IMDG, IATA)

Marine pollutant: No
(IMDG)

Hazchem Code: 2WE
(ADG)

Emergency Response Guide No: 131

Special precautions for user: No data available.

Additional information: No data available.

Section 15. Regulatory information

This material is not subject to the following international agreements:

- Montreal Protocol (Ozone depleting substances)
- The Stockholm Convention (Persistent Organic Pollutants)
- The Rotterdam Convention (Prior Informed Consent)
- Basel Convention (Hazardous Waste)
- International Convention for the Prevention of Pollution from Ships (MARPOL).

This material/constituents(s) is covered by the following requirements:

- The Standard for the Uniform Scheduling of Medicines and Poisons (SUSMP) established under the Therapeutic Goods Act 1989 (Cwlth) (as amended). **Poisons ScheduleNumber S6**.
- All components of this product are listed on or exempt from the Australian Inventory of Chemical Substances (AICS).

Source of data

This SDS has been prepared in accordance the Safe Work Australia Preparation of safety data sheets for hazardous chemicals Code of Practice prepared under the Work Health and Safety Act and Work Health and Safety Regulations.
Code of Practice: Labelling of workplace hazardous chemicals
'Standard for the Uniform Scheduling of Medicines and Poisons No. 23'

Hazard Classification

Australian Inventory of Chemical Substances (AICS) (NICNAS)
Chemical Assessment Reports (NICNAS)
Workplace Exposure Standards for Airborne Contaminants

Globally Harmonized System of Classification and Labelling of Chemicals (GHS)
(United Nations)Global Portal to Information on Chemical Substances (OECD).
OECD means the Organisation for Economic Cooperation and Development.
Hazardous Chemical Information System
European Chemicals Agency (ECHA)

Other references

National Road Transport Commission, 'Australian Code for the Transport of Dangerous Goods by Road and Rail.
IMDG: International Maritime Code for Dangerous Goods
IATA: International Air Transport Association
Lewis, Richard J. Sr. 'Hawley's Condensed Chemical Dictionary 13th. Ed.', Rev., John Wiley and Sons, Inc., NY, 1997.
Australian Emergency Response Guidebook 2018.

Section 16. Other Information

Date of preparation: 12 June 2020
Reason for issue: New revision
Prepared by: ChemVit Consulting Pty Ltd. www.chemvit.com.au

Key abbreviations or acronyms used

< Less Than. > Greater Than. AICS Australian Inventory of Chemical Substances. atm Atmosphere. CAS Chemical Abstracts Service (Registry Number). cm² Square Centimetres. deg C (°C) Degrees Celsius. g Grams g/cm³ Grams per Cubic Centimetre. g/l Grams per Litre. IDLH Immediately Dangerous to Life and Health. LC50 LC stands for lethal concentration. LC50 is the concentration of a material in air which causes the death of 50% (one half) of a group of test animals. The material is inhaled over a set period, usually 1 or 4 hours.	LD50 LD stands for Lethal Dose. LD50 is the amount of a material, given all at once, which causes the death of 50% (one half) of a group of test animals. NIOSH National Institute for Occupational Safety and Health. NOHSC National Occupational Health and Safety Commission. OECD Organisation for Economic Co-operation and Development. ppb Parts per Billion. ppm Parts per Million. psi Pounds per Square Inch. STEL Short Term Exposure Limit. TLV Threshold Limit Value. TWA Time Weighted Average. UN United Nations.

Disclaimer

This Safety Data Sheet was prepared in good faith from the best information available at that time of issue and is based on the present state of our knowledge and to this extent we believe it is accurate. However, no guarantee of accuracy is made or implied and since conditions of use are beyond our control, all information relevant to usage is offered without warranty. Ozzie Traders Pacific Group Pty Ltd and its Affiliates or Agents shall not be held liable or responsible for any damage or unauthorised use of this information or from contact with this product.

In all cases please ensure you have the current version. The user is cautioned to make their own determinations as to the suitability of the information provided to the circumstances in which the product is used.

END OF SDS