

Safety Data Sheet – FUEL SET

1. Identification

Product Name: Fuel Set

UN Number: 3082

Recommended Use: Fuel additive.

Proper Shipping Name: ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S (Ethoxylated nonylphenol)

Manufacturer:

Name: Liquid Engineering NZ Ltd

Address: PO Box 2264

Stoke

Nelson

New Zealand 7011

Phone: 03 547 1880

Email: info@liquidegnineering.co.nz

Website: www.liquidengineering.co.nz

Emergency Contacts:

Emergency Services (Fire, Ambulance, Police) – Dial 111

National Poisons Information Centre – 0800 764 766

(0800 POISON)

Company Contact – 03 547 1880

2. Hazard Identification

Statement of Hazardous Nature:

This preparation is classified as a health or environmental hazard according to the Hazardous Substances (Minimum Degrees of Hazard) Notice 2017.

Classified as a Dangerous Good according to NZS 5433.

Hazard Classification:

3.1D, 6.1E, 6.3B, 6.4A, 6.8B, 6.9B, 9.1B



Hazard Statements:

WARNING

Combustible liquid.

May be harmful if swallowed.

May be harmful in contact with skin.

Causes mild skin irritation.

Causes serious eye irritation.

Suspected of damaging fertility or the unborn child (inhalation of methanol).

May cause damage to organs through inhalation exposure (methanol).

May cause damage to organs through prolonged or repeated oral or dermal exposure.

Toxic to aquatic life with long lasting effects.

Prevention Statements:

Keep out of reach of children.

Read label and safety data sheet before use.

Obtain special instructions before use.

Do not handle until all safety precautions have been read and understood.

Keep away from flames and hot surfaces. No smoking.

Do not breathe mist / vapours / spray.

Wash hands and any exposed skin thoroughly after handling.

Do not eat, drink or smoke when using this product.

Avoid release to the environment.

Wear protective gloves and eye / face protection.

3. Composition & Information on Ingredients

Ingredient	CAS Number	Concentration (%)
Ethoxylated nonylphenol	9016-45-9	30 – 60%
Glycol ether solvents	112-34-5; 34590-94-8	30 – 60%
Methanol	67-56-1	<10%
Diethanolamine	111-42-2	<10%

4. First Aid Measures

If medical advice is needed, have product container or label at hand.

New Zealand Poisons & Hazardous Chemicals National Information Centre
phone 0800 POISON – 0800 764 766

Skin: IF ON SKIN, remove contaminated clothing and wash skin and hair with soap and water. If irritation occurs, seek medical advice. Wash contaminated clothing before reuse.

Eyes: IF IN EYES, rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing until advised to stop by the Poisons

Centre or a doctor, or for at least 15 minutes. If eye irritation persists, seek medical attention.

Ingestion: IF SWALLOWED, rinse mouth with water. Give water to drink. Do NOT induce vomiting. Call a POISON CENTRE or doctor if you feel unwell.

Inhalation: IF INHALED, remove victim from exposure. Keep at rest in a position comfortable for breathing and keep warm. Seek medical advice if you feel unwell.

Other: If exposed or if you feel unwell, call a POISON CENTRE or seek medical advice/attention.

Advice to Doctor: Treat symptomatically.

5. Fire Fighting Measures

Flammability: Combustible liquid. Product burns but does not ignite readily.

Extinguishing media: Water fog (or fine water spray), foam, carbon dioxide and dry chemical powder.

Hazardous Combustion products: Carbon and nitrogen oxides may be formed. Fire may produce irritating and/or toxic fumes.

Fire Fighting Instructions: Fire-fighters should wear full protective clothing and self-contained breathing apparatus.

6. Accidental Release Measures

General: Slippery when spilt. Clean up immediately. Wear protective equipment to avoid skin, eye and respiratory irritation.

Spills: Contain and absorb spill with sand, vermiculite or similar inert materials. Collect and place in sealable containers for later disposal (in accordance with Section 13). Flush spill area with water after clean-up. Prevent product and spill water from entering storm water and sewer drains and watercourses.

7. Handling & Storage

Safe Handling

Before use carefully read the product label.

Obtain special instructions before use. Do not handle until all safety precautions have been read and understood.

Keep away from flames and hot surfaces.

Do not breathe mist / vapours / spray.

Wear protective gloves and eye/face protection when handling product.

Wash hands and any exposed skin thoroughly after handling. Use of safe work practices are recommended to avoid eye or skin contact.

Do not eat, drink or smoke when using this product.

Certified Handler: Not required.

Storage

Store locked up.

Store in a well-ventilated place. Keep cool.

Keep containers closed when not in use and check regularly for leaks.

Ensure containers are labelled and protected from physical damage. Store away from foodstuffs.

Do not store nearby strong oxidising agents.

8. Exposure Controls & Personal Protection

Exposure Standards

Workplace Exposure Standards (WES):

No exposure standards have been set for this product. Exposure limits for ingredients are listed below.

Ingredient	CAS #	TWA	STEL
Glycol ether solvent	34590-94-8	100 ppm 606 mg/m ³	150 ppm 909 mg/m ³
Methanol (skin; bio)	67-56-1	200 ppm 262 mg/m ³	250 ppm 328 mg/m ³
Diethanolamine (skin)	111-42-2	3 ppm 13 mg/m ³	

Data source: *Workplace Exposure Standards and Biological Indices (12th Edition, Nov 2020, WorkSafe)*

Last Revised: 4 January 2026

Biological Exposure Indices

No biological exposure indices have been set for this product. Exposure indices for ingredients are listed below.

Ingredient	Determinant	Sampling Time	BEI
Methanol	Methyl alcohol in urine.	End of shift	15 mg/L

Data source: *Workplace Exposure Standards and Biological Indices (12th Edition, Nov 2020, WorkSafe)*

Engineering Controls

Ventilation: Ensure adequate ventilation to prevent exceeding workplace exposure standards. Optimise natural airflows.

Personal Protection (PPE)

Wear overalls, safety shoes, chemical goggles and gloves when handling. Avoid skin and eye contact. Wash contaminated clothing and other protective equipment before storage or reuse.

Eyes/Face: Splash resistant Safety Glasses with side shields or safety goggles (AS/NZS 1337).

Skin: Wear protective gloves. Glove material must be impermeable and resistant to the product (AS/NZS 2161). Suitable glove materials include neoprene. Consult your glove supplier for specific product information.

Respiratory: No respiratory protection is required under normal conditions of use. If there is a risk of inhalation of vapour, spray or mists, wear an approved respirator with organic vapour cartridges. Respiratory protection should comply with AS/NZS 1716 and maintained in accordance with AS/NZS 1715.

9. Physical & Chemical Properties

Appearance: Clear, green mobile liquid.

Odour: Mild odour.

Odour threshold: No data available.

pH (10g/L): 7

Boiling point: >120°C

Melting point: No data available.

Flash point: >67°C

Flammability: Combustible liquid.

Lower Flammability Limit (LEL): No data available.

Upper Flammability Limit (UEL): No data available.

Vapour pressure: No data available.

Vapour density: No data available.

Specific gravity (20°C): 0.98

Solubility: Completely miscible in water.

Partition coefficient: No data available.

Autoignition temp: No data available.

Decomposition temp: No data available.

Viscosity (dynamic): No data available.

10. Stability & Reactivity

Stability: Stable under normal conditions of use and storage.

Reactivity: No data available.

Incompatible Materials: Strong oxidising agents.

Conditions to avoid: High temperatures and sources of ignition.

Hazardous decomposition products: Thermal decomposition may generate oxides of carbon.

11. Toxicological Information

Health Effects / Symptoms of Exposure

Acute Exposure:

Summary: No adverse health effects expected if the product is handled in accordance with this Safety Data Sheet and product label. Symptoms that may arise if the product is mishandled include:

Skin: May be harmful in contact with skin. Causes mild skin irritation. Can be absorbed through the skin; effects can include those listed under 'ingestion'.

Eyes: Causes serious eye irritation.

Ingestion: May be harmful if swallowed. Ingestion may cause nausea, vomiting, headache, drowsiness, central nervous system depression and loss of consciousness.

Inhalation: Inhalation of mist may cause respiratory irritation

Chronic Exposure:

Sensitiser: Not considered to be a contact or respiratory sensitiser.

Mutagenicity: Not considered to be a mutagen.

Carcinogenicity: Not considered to be a carcinogen.

Reproductive Toxicity: Suspected of damaging fertility or the unborn child.

Specific Target Organ Toxicity: May cause damage to organs through inhalation exposure. May cause damage to organs through prolonged or repeated oral or dermal exposure.

Aspiration Hazard: Not expected to be an aspiration hazard.

Toxicological Data

Product	LD50 (Oral, Rat) =	> 5,000 mg/kg
	LD50 (Dermal, Rabbit) =	> 10,000 mg/kg

Data source: *Liquid Engineering NZ, Fuel Set SDS, 01.01.2016*

12. Ecological Information

Toxic to aquatic life with long lasting effects. Avoid release to the environment.

Persistence in environment: No data available.

Mobility: No data available.

Biodegradability: No data available.

Ecotoxicological Data

No data available for this product as a whole. Ecotoxicological data below is for individual ingredients.

Ethoxylated nonylphenol	LC50 (<i>Lepomis macrochirus</i> , 96-hr) =	1.3 mg/L
	LC50 (<i>Daphnia pulex</i> , 48-hr) =	4.8 mg/L
Methanol	LD50 (Mouse) =	870 mg/kg
Diethanolamine	EC50 (<i>Ceriodaphnia dubia</i> , 48-hr) =	28.8 mg/L
	EC50 (<i>Scenedesmus subspicatus</i> , 48-hr) =	7.8 mg/L

Data source: *Chemical Classification and Information Database (CCID)*

13. Disposal Considerations

Product is hazardous. Do not allow into drains, sewers or watercourses. Bulk or contaminated product may be disposed of through an approved hazardous waste contractor. Disposal waste contractors must comply with the New Zealand Hazardous Substances (Disposal) Notice 2017. Containers may only be recycled if clean and free of residue so as to be non-hazardous.

14. Transport Information

Classified as a Dangerous Good according to NZS 5433:2007

Proper Shipping Name: ENVIRONMENTALLY
HAZARDOUS SUBSTANCE, LIQUID, N.O.S
(Ethoxylated nonylphenol)

UN Number: 3082

DG Class: 9

Subsidiary Risk: N/A

Packing Group: III

Marine Pollutant: Yes (Ethoxylated nonylphenol)

15. Regulatory Information

HSNO Approval

All ingredients listed in the NZIoC.

HSNO Group Standard: Fuel Additives (Combustible) Group Standard 2017 – HSR002581

16. Other Information

Abbreviations / Terminology:

AS/NZS	Joint Australian New Zealand Standard
AS/NZS 1337	Personal eye-protection
AS/NZS 1715	Selection, use and maintenance of respiratory protective equipment
AS/NZS 1716	Respiratory protective devices
AS/NZS 2161	Occupational protective gloves
(bio)	Exposure can also be estimated by biological monitoring.
CAS#	Chemical Abstract Service number (a unique identifier for chemicals)
EC50	Median effect concentration, being a statistically derived concentration of a substance that can be expected to cause an adverse reaction or reduction in growth/growth rate in 50 percent of organisms.
HSNO	(New Zealand) Hazardous Substances and New Organisms Act
LC50	Median lethal concentration, being a statistically derived concentration of a substance that can be expected to cause death in 50 percent of organisms.
LD50	Median lethal dose, being a statistically derived single dose of a substance that can be expected to cause death in 50 percent of animals.
NZIoC	New Zealand Inventory of Chemicals
NZS 5433	Transport of Dangerous Goods on Land
(skin)	Substance has potential for significant skin absorption. May result in higher uptake of substance than from inhalation alone.
STEL	Short Term Exposure Limit
TWA	Time Weighted Average
WES	Workplace Exposure Standard



Prepared with reference to:

- *Hazardous Substances (Safety Data Sheets) Notice 2017* published by Environmental Protection Authority, New Zealand.

Current Version: 4 January 2026

Revision Information:

SDS may be revised from time to time, please ensure you have a current copy.

This revision: Updated to meet NZ requirements.

Previous revision dated: 4 February 2021

Disclaimer:

This safety data sheet attempts to describe as accurately as possible the potential exposures associated with normal use of the product described herein. Health and safety precautions in the data sheet may not be adequate for all individuals and/or situations. Users have the responsibility to evaluate and use this product safely and to comply with all applicable laws and regulations.

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--END OF SDS