Date of issue: 14 October 2025
SDS Version No: 3

Safety Data Sheet
Petrol Unleaded

Classified as: Hazardous according to the EPA Hazardous Substances (Hazard Classifications) Notice 2020.

Section 1: SUBSTANCE AND SUPPLIER DETAILS

Product Name:	Petrol Unleaded
Other Names:	Regular 91 with Techron, Regular Unleaded 91, Unleaded 91, Premium 95 with Techron, Premium Unleaded 95, Premium 95.
Supplier:	Z Energy 2015 Limited 3 Queens Wharf Wellington New Zealand
Phone:	+64 4 472 0080
Local Contact:	Phone – 0800 474 355 Email – cxservice@z.co.nz
Recommended Use:	Fuel for spark ignition engines designed to run on unleaded fuel.
Use Restriction:	Not intended for use in aviation applications.

In Case of Emergency Contact:

CHEMCALL:	0800 CHEMCALL (243 622) 24 hours International - +64 4 917 9888

Section 2: HAZARDS IDENTIFICATION

This product is classified as a Dangerous Good for Transport.

This product is classified as hazardous according to criteria in the EPA Hazardous Substances (Hazard Classifications) Notice 2020.

HSNO APPROVAL NUMBER: **HRC000003**

HSNO CLASSIFICATIONS: 3.1A – Extremely flammable liquid.
6.1E – Aspiration hazard
6.7B – Suspected carcinogen
9.1B – Ecotoxic in the aquatic environment, chronic

GHS Classification: Flammable liquid – Category 1
Carcinogenicity – Category 2

Aspiration hazard – Category 1
Hazardous to the aquatic environment, chronic – Category 2

Labelling Elements:

Hazard Statements:

H224 Extremely flammable liquid and vapour.
H304 May be fatal if swallowed and enters airways.
H351 Suspected of causing cancer.
H411 Toxic to aquatic life with long lasting effects.

GHS Pictograms:

Signal Word: **DANGER**

PREVENTION STATEMENTS:
P102 – Keep out of reach of children.
P103 – Read carefully and follow all instructions.
P202 – Do not handle until all safety precautions have been read and understood.
P210 – Keep away from heat, hot surfaces, sparks, open flames, and other ignition sources. No smoking.
P233 – Keep container tightly closed.
P240 – Ground and bond container and receiving equipment.
P241 – Use explosion-proof ventilating/electrical/lighting equipment.
P242 – Use non-sparking tools.
P243 – Take action to prevent static discharges.
P273 – Avoid release to the environment.
P280 – Wear protective gloves, protective clothing, eye protection, face protection.

RESPONSE STATEMENTS:
P101 - If medical advice is needed, have product container or label at hand.
P301 + P331 – IF SWALLOWED: Do NOT induce vomiting.
P303 + P361 + P353 - IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water or shower.
P308 + P310 – If exposed or concerned: Immediately call a POISON CENTRE or doctor.
P370 + P378 - In case of fire: Use water spray, dry powder, foam, or carbon dioxide to extinguish.
P391 – Collect spillage.

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

DISPOSAL:
P501 - In accordance with the EPA Hazardous Substances (Disposal) Notice 2017. Dispose of via an approved waste disposal contractor. Refer to Section 13 of the SDS.

Other information: This product is intended for use as a fuel in a closed system. If used for any other purpose, in open systems or as a spray, ignition and exposure risks will increase and a careful risk assessment should be carried out.

Section 3: COMPOSITION / INFORMATION ON INGREDIENTS

Mixture: Complex mixture of hydrocarbons consisting of paraffins, cycloparaffins, aromatic and olefinic hydrocarbons (including benzene at 1.0% v/v maximum), with carbon numbers predominantly in the C4 to C12 range. May also contain several additives at <0.1% v/v each. Alcohols may be present at <0.1% v/v. Dyes and markers can be used to indicate tax status and prevent fraud.

Main Component	CAS Number	Concentration (%wt)
Gasoline, low boiling point naphtha	86290-81-5	90 - 100%
Benzene	71-43-2	< 1%

There are no additional ingredients present which, within the current knowledge of the supplier and in the concentrations applicable, are classified as hazardous to health or the environment and hence require reporting in this section.

Section 4: FIRST AID MEASURES

Workplace Facilities Required: Eye wash and safety shower facilities should be provided in workplaces where there is a risk of significant exposure.

If Inhaled: Remove to fresh air and keep at rest. Seek medical attention if symptoms persist.

In Contact with Eye: Hold eyes open, flush continuously with water for at least 15 minutes. Seek medical attention if irritation develops and persists.

In Contact with Skin: Wash skin with soap and plenty of water, while removing contaminated clothing and shoes. Wash contaminated clothing before re-use. Seek medical attention if skin irritation develops and persists.

If Swallowed: DO NOT INDUCE VOMITING. Rinse mouth. Never give anything by mouth to an unconscious person. If unconscious, seek immediate medical attention. If vomiting occurs, keep head below hips to prevent aspiration to lungs.

Advice to Doctor: Treat symptomatically. Aspiration of product into lungs following vomiting may cause fatal pulmonary oedema.

Section 5: FIRE FIGHTING MEASURES

Fire/Explosion Hazard: Extremely flammable liquid and vapour. Ensure adequate ventilation to prevent explosive vapour-air mixture and prevent build-up of electrostatic charges (i.e. by grounding). The vapour is heavier than air, spreads along the ground and distant ignition is possible. Will float and may be reignited on surface water. Keep away from hot surfaces, heat, sparks, and ignition sources.

Hazchem Code: 3YE.

Suitable Extinguishing Media: Use water spray or fog, carbon dioxide, dry powder, or foam. Sand or earth may be used on small fires. Do not use water jet.

Precautions in Connection with Fire: Combustion is likely to give rise to a complex mixture of airborne solid and liquid particulates and gases, including carbon monoxide and unidentified organic and inorganic compounds.

Advice for firefighters:

Fire fighters should wear Self-Contained Breathing Apparatus (SCBA) operated in positive pressure mode and full protective clothing to prevent exposure to vapours or fumes. Water spray may be used to cool down heat-exposed containers. Fight fire from safe location. This product should be prevented from entering drains and watercourses.

Keep adjacent drums and tanks cool by spraying with water from a safe location. If possible, remove them from the danger zone. If adequate cooling cannot be achieved, the area needs to be evacuated, and further firefighting and cooling attempts should be carried out from a safe location.

Section 6: ACCIDENTAL RELEASE MEASURES

An emergency response plan meeting the requirements of Part 5 of the Health and Safety at Work (Hazardous Substances) Regulations 2017 is required when held in quantities greater than 100L.

Precautions:

Vapour can travel for considerable distances both above and below the ground surface. Underground services (drains, pipelines, cable ducts) can provide preferential flow paths.

Clear area of all unprotected personnel. Keep unnecessary and unprotected personnel from entering area. Do not breathe fumes/vapour. Avoid contact with skin and eyes. Remove any readily combustible materials and all sources of ignition. Ventilate area. Do not release to the environment. If spill enters waterways, contact local council pollution hotline.

Suitable Protective Equipment:

Emergency responders must use personal protective equipment, including gloves, PVC jacket and trousers, knee length, chemical resistant safety boots, and safety glasses with side shields or safety goggles. Respiratory protection may be required if large amounts of vapour/fumes is present. Contaminated clothing may be a fire hazard and therefore should be soaked with water before being removed.

Spill or Leak Procedures.

Stop leak if safe to do so. Contain and absorb spill using inert, non-combustible, absorbent material such as sand, earth. Collect using clean, non-sparking tools and place in a waste container for disposal. Ensure waste container is properly labelled. Do not dispose into an interceptor.

Maritime Spillages:
Maritime spillages should be dealt with using a Shipboard Oil Pollution Emergency Plan (SOPEP), as required by MARPOL Annex 1 Regulation 26.

Waste Disposal Methods:

Dispose of as per Section 13.

Emergency preparation:

Ensure there is appropriate and adequate personal protective equipment, trained personnel and clean up materials for management of accidental release.

Section 7: HANDLING AND STORAGE

Precautions for Safe Handling:

Avoid naked flames, hot surfaces, heat, and ignition sources. The vapour is heavier than air, spreads along the ground and distant ignition is possible. Avoid contact with skin and eyes. Do not breathe vapour/fumes. Use local exhaust ventilation if there is risk of inhalation of vapours, mists, or aerosols. Do not eat, drink, or smoke when using this product. Work from suitable, labelled, fire-resistant containers. Open containers carefully as they may be under pressure. Keep containers closed when not in use. Flameproof equipment is necessary in

areas where the product is being used. Only use in well-ventilated areas. Take precautionary measures against static discharges. Ensure all equipment is properly bonded. Cloth, paper, and other materials that are used to absorb spills present a fire hazard. Avoid their accumulation by disposing of them safely and immediately. Remove contaminated clothing and wash hands and face before entering eating areas.

Product Transfer: Electrostatic charges may be generated during pumping. Ensure electrical continuity by bonding all equipment. Avoid splash filling. Wait 2 minutes after tank filling (for tanks such as those on road tanker vehicles) before opening hatches or manholes. Wait 30 minutes after tank filling (for large storage tanks) before opening hatches or manholes. When filling tanks there is always a danger of static discharge leading to explosion. This is particularly hazardous when switch loading tanks.

Product transfer may give rise to light hydrocarbon vapour in the headspace of tanks. This vapour may explode if there is a source of ignition such as static discharge.

Partly filled containers present a greater hazard than those that are full, therefore handling, transfer and sampling activities need special care. Conditions, such as filling empty Filter Water Separator vessels, that lead to the formation of hydrocarbon mists are also particularly hazardous.

Storage: Keep out of reach of children. Store locked up. This product must never be stored in buildings occupied by people. Small volumes (maximum 5 litres) may be stored in a suitably designed portable container. Such containers should be stored in well-ventilated areas, flameproof cabinets, or stores. Use properly labelled and closeable containers. Keep container tightly closed in a dry, well-ventilated place away from direct sunlight and other sources of heat or ignition.

Keep in a bunded area with a sealed (low permeability) floor, to provide containment against spillage. Stack drums to a height not exceeding 3 metres without the use of racking. Locate tanks away from heat and other sources of ignition. Seek specialist advice for the design, construction, and operation of bulk storage facilities.

Site Storage Requirements: Site Signage will be required when quantities exceed 250L. For incompatibilities refer to Section 10.

Section 8: EXPOSURE CONTROLS / PERSONAL PROTECTION

Workplace Exposure Standards NZ: Workplace Exposure Standards have been established for this product.

Benzene: TWA 0.05 ppm, 0.16 mg/m^3 (carcinogen cat 1, skin)

Petrol (Gasoline): TWA 300 ppm, 890 mg/m^3, STEL 500 ppm, 1480 mg/m^3

Engineering Controls: Eyewash facilities and safety showers should be provided in the work area where there is a risk of exposure to eyes and skin. If use generates large quantities of vapour/fumes, use engineering controls such as local exhaust ventilation to ensure workers are not exposed to levels exceeding the exposure standards.

Personal Protective Equipment: Avoid contact with skin and eyes. Avoid breathing vapour/fumes.

Hand protection: Wear protective gloves that are resistant to the product, e.g., neoprene rubber, nitrile. Refer to Australian and New Zealand Standard AS/NZS 2161 for

protective gloves.

Skin and body protection: Wear protective clothing such as cotton overalls buttoned and neck and wrist. When handling large quantities, a chemical resistant apron is recommended. Refer to Australian and New Zealand Standard AS/NZS 4501 for occupational protective clothing.

Eye protection: Use safety glasses with side shields or safety goggles to protect eyes. A face shield may also be used with safety glasses to prevent splashes to face. Refer to AS/NZS 1336 and 1337 for suitable eye and face protection.

Respiratory protection: Where there is inadequate ventilation and use results in exposure to vapour/fumes, use a respirator with a replaceable organic vapour filter. Refer to AS/NZS 1715 and AS/NZS 1716 for suitable respiratory protection.

Other information: PPE selected must be impervious to the product. Do not eat, smoke, or drink where material is handled, processed, or stored. Wash hands carefully before eating, drinking, or smoking. Handle in accordance with safe industrial hygiene practices.

Section 9: PHYSICAL AND CHEMICAL PROPERTIES

Description:	Liquid	**Colour:**	Red/pale straw/yellow
Odour:	Characteristic odour	**Odour Threshold:**	Not available
pH (20°C):	Not applicable	**Solubility (water, 20°C):**	Negligible
Freezing/Melting point:	Not available	**Boiling Point & Range:**	25°C – 210°C
Flammability:	Extremely flammable liquid	**Flash Point:**	< -40°C
LEL/UEL:	1 – 8% v/v	**Vapour Pressure (20°C):**	30-90 kPa
Decomposition Temp:	Not available	**Autoignition Temp:**	> 250°C
Density (15°C):	720-775 kg/m^3	**Vapour Density (20°C):**	>3 (air = 1)
Partition Coefficient: oil/water	Log Pow: 2-7	**Viscosity (kinematic):**	0.5-0.75 mm^2/s (40°C)
Particle Characteristics:	Not applicable		

Section 10: STABILITY AND REACTIVITY

Stability: Stable under normal cool, dry storage conditions.

Reactivity: Not reactive under normal conditions of storage and use.

Conditions to Avoid: Heat, hot surfaces, ignition sources, sparks, flames.

Incompatibility: Keep away from oxidising agents and combustible materials such as paper, cardboard, wood.

Hazardous Decomposition: Thermal decomposition may release toxic fumes containing oxides of carbon.

Section 11: TOXICOLOGICAL INFORMATION

Acute Exposure

Acute Toxicity:	Not classified as acutely toxic. LD_{50} oral > 2,000 mg/kg. LD_{50} dermal > 2,000 mg/kg LC_{50} inhalation > 20 mg/L (vapour)
Inhalation:	Large quantities of vapour will displace oxygen and may cause drowsiness, dizziness.
Ingestion:	Ingestion of large quantities may cause nausea, vomiting, stomach pain, drowsiness, and dizziness. If vomiting occurs and is aspirated into lungs this may be fatal.
Skin Corrosion/Irritation:	Product is not classified as a skin irritant or corrosive. Prolonged or repeated skin contact may cause defatting of the skin and dermatitis. High pressure injection into the skin may cause local necrosis if the product is not surgically removed.
Serious Eye Damage/Eye Irritation:	Product is not classified as an eye irritant or corrosive. Contact with eyes may cause redness, stinging, weeping.
Respiratory or Skin Sensitisation:	Product is not expected to be a contact or respiratory sensitiser.

Chronic Exposure:

Mutagen/Carcinogen/Reproductive Toxicant	Product is classified as a suspected carcinogen via inhalation. Product is not expected to be mutagenic, or a reproductive or developmental toxicant.
Specific Target Organ Toxicity Single Exposure:	No information available. Not expected to be a specific target organ toxicant by single exposure.
Specific Target Organ Toxicity Repeated Exposure:	No information available. Not expected to be a specific target organ toxicant by repeated exposure.
Aspiration Hazard:	Product is classified as an aspiration hazard and may cause fatal pulmonary oedema if aspirated into lungs.

Section 12: ECOLOGICAL INFORMATION

Ecotoxicity:	LC_{50} >1 - ≤ 10 mg/L in the aquatic environment. Product is ecotoxic in the aquatic environment with long-lasting effects. Avoid losses to the environment.
Persistence/degradability:	Major components are biodegradable. Volatile components oxidise rapidly in air by photochemical reaction. Product may persist in anaerobic conditions.
Bioaccumulation:	Contains components with the potential to bioaccumulate.
Mobility in soil:	Product floats on water. Evaporates within a day from water or soil surfaces. Large volumes could penetrate soil and contaminate groundwater.
Other adverse effects:	Films formed on water may affect oxygen transfer and damage organisms.
Ingredients with Ecotoxic classifications:	Petrol is made from blending several refinery streams. Ecotoxic effects have been carried out on a variety of hydrocarbon blends and streams but not those containing additives. Petrol has been classified as toxic to the aquatic environment with long lasting, chronic, effects based on knowledge of the components in the petrol and the

ecotoxicity of similar products.

Section 13: DISPOSAL CONSIDERATIONS

Disposal: Recycle and reuse wherever possible. Do not dispose into the environment, in drains or in water courses. Do not dispose of tank water bottoms by allowing them to drain into the ground. This will result in soil and groundwater contamination. Dispose of waste product via an approved waste disposal contractor.

Disposal of Packaging: Labels should not be removed from containers until they have been cleaned. Do not cut, puncture, or weld on or near containers. Empty containers may contain hazardous combustible residues. Contaminated containers must not be treated as household waste. Containers should be cleaned by appropriate methods and then re-used or disposed of by landfill or incineration as appropriate. Do not incinerate closed containers. Advise flammable nature. Dispose of packaging via an approved waste disposal contractor.

Section 14: TRANSPORT INFORMATION

This product is classified as a Dangerous Good for transport in accordance with NZS5433:2020, IMDG or IATA.

NZS5433:2020
UN No: 1203
Proper Shipping Name: Petrol
Class: 3
Packing Group: II
Environmentally hazardous: Yes
Hazchem Code: 3YE

IMDG:
UN No: 1203
Proper Shipping Name: Petrol
Class: 3
Packing Group: II
Marine Pollutant: Yes
EmS: F-E, S-E

IATA:
UN No: 1203
Proper Shipping Name: Petrol
Class: 3
Packing Group: II
Environmentally hazardous: Yes

Ensure transportation methods prevent leakage from packages and collapsing loads.

Section 15: REGULATORY INFORMATION

HSNO Approval Code: HRC000003

NZ Inventory of Chemicals: All ingredients are listed in the NZ Inventory of Chemicals (NZIoC).

Australian Inventory of Chemical Substances: All ingredients are listed on the Australian Inventory of Chemical Substances (AICS).

This substance triggers:

Compliance Certificate	50L
Certified Handler	N/A
Emergency Response Plan	100L
Secondary Containment	100L
Signage	250L

For quantities between 50 – 200 L, one fire extinguisher is required. For quantities >200L, 2 fire extinguishers are required. This does not apply to an unattended dispensing station for self-service refueling.

This product is required to be secured when unattended for any quantity.

When the product is stored on a farm of > 4 ha in area, a Location Compliance Certificate and Signage is required for ≥ 2,000L subject to certain conditions.

This product is not required to be Tracked. All workplace personnel handling this product are required to be trained on the safe handling and PPE requirements for the hazards associated with this substance.

Section 16: OTHER INFORMATION

The information provided in this Safety Data Sheet relates only to the specific material designated herein. This Safety Data Sheet summarises our best knowledge of the health and safety hazard information of the product and how to safely handle the product in the workplace. Each user should read this SDS and consider the information in the context of how the product will be handled and used in the workplace including its use in conjunction with other products.

This substance is approved under HSNO as petrol. All reasonable care has been taken to ensure that the information and advice contained herein are from sources believed to be reliable and to represent the most up-to-date knowledge available at the date given in Section 16. No liability is assumed for any damages related to the use or misuse of this substance.

All chemical materials may present unknown hazards as people have varying degrees of sensitivity to chemicals. Therefore, this product should be used with caution. The information herein is given in good faith, but no warranty, express or implied is made.

SDS Issued: 14 October 2025

Supersedes: 1 December 2020

Reason for Revision: Update to GHS classifications.
Revised by: Simonne Moses - HSNO Consultant

References:

EPA NZ Approved Hazardous Substances with Controls Database.
Original SDS: Z Energy Limited, Petrol SDS, September 2020.

Summary of Abbreviations: EPA – Environmental Protection Authority
GHS – Global Harmonisation System
CAS – Chemical Abstracts Service
TWA – Time Weighted Average
STEL – Short Term Exposure Limit

END OF SAFETY DATA SHEET