



SAFETY DATA SHEET

Gull Oil New Zealand Ltd

Section 1. Identification of the material and the supplier

Product: Gull E85 - De-natured Ethanol (Ethyl Alcohol) 85% blended with 15% Gull Premium Unleaded Petrol (Gasoline)

Product Code: E85 Pulp (Gull Unleaded with 85% Ethanol)

Product Use: Use only as motor fuel for spark ignition. NOT for aviation or marine use. Should NOT be used as a solvent or a cleaning agent. For specific application advice see appropriate technical data Sheet or consult your Gull representative.

Company Name: Gull Oil New Zealand

Address: Level 1, 507 Lake Road, Takapuna, Auckland

Telephone: +64 9 489-1452

Fax Number: +64 9 489 1453

Emergency Telephone: 0800 POISON (0800 764 766)

Website: www.gull.biz

Preparation Date: 24 March 2010 – version 1

Section 2. Hazards Identification

This substance is classified as a dangerous good according to NZS5433: 2007

This substance is hazardous according to the *HSNO (Minimum Degrees of Hazard) Regulations 2001*

ERMA Approval Code: HSR008039

Pictograms



Flammable



Chronic



Ecotoxic

HSNO Classification	Hazard Code	Hazard Statement
3.1A	H224	Extremely flammable liquid and vapour
6.1E	H303	May be harmful if swallowed.
6.3B	H316	Causes mild skin irritation.
6.4A	H320	Causes eye irritation
6.7B	H351	Suspected of causing cancer
9.1B	H411	Toxic to aquatic life with long lasting effects

Prevention Code	Prevention Statement
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P102	Keep out of reach of children.
P202	Do not handle until all safety precautions have been read and understood.
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/equipment
P242	Use only non-sparking tools.
P243	Take precautionary measures against static discharge.
P264	Wash hands thoroughly if exposed to extensive spillage or splashing
P281	Use personal protective equipment as required.

Response code**Response Statement**

P101	If medical advice is needed, have product container or label at hand.
P312	Call a POISON CENTER 0800 764 766 or doctor/physician if you feel unwell.
P303+P361+P353	IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower.
P305 + 351 + 338	IF IN EYES rinse cautiously for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P308+P313	If exposed or concerned: Get medical advice/ attention.
P332+P313	If skin irritation occurs: Get medical advice/ attention.
P337 + P313	If eye irritation occurs: Get medical advice/attention.
P370+P378	In case of fire: Use foam for extinction.

Storage Code**Storage Statement**

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

Disposal Code**Disposal Statement**

P501	Dispose of contaminated residues or waste by liaising with a waste disposal company or by disposing at a site approved by relevant local authorities.
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Section 3. Composition / Information on Ingredients
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Hazardous Ingredients	Wt%	CAS NUMBER.
Ethanol	70-90%	64-17-5
Petrol	10-30%	86290-81-5
Benzene	<3%	71-43-2
Toluene	<4%	108-88-3

Information on Composition:

The petrol component is a complex mixture of volatile hydrocarbons containing paraffin's, naphthenes, olefins and aromatics with carbon numbers predominantly between C4 and C12.

Contains: Low boiling point naphtha - unspecified. May contain oxygenates. May also contain small quantities of proprietary performance additives.

Section 4. First Aid Measures

Routes of Exposure:

Inhalation: If exposure to vapour, mists or fumes causes drowsiness, headache, blurred vision or irritation of the eyes, nose or throat, remove immediately to fresh air. Keep patient warm and at rest. If any symptoms persist obtain medical advice. Unconscious casualties must be

placed in the recovery position. Monitor breathing and pulse rate and if breathing has failed, or is deemed inadequate, respiration must be assisted, preferably by the mouth to mouth method. Administer external cardiac massage if necessary. Seek medical attention immediately.

- Ingestion:** If contamination of the mouth occurs, wash out thoroughly with water. Except as a deliberate act, the ingestion of large amounts of product is unlikely. If it should occur, do NOT induce vomiting; obtain medical advice.
- If on Skin:** Wash skin thoroughly with soap and water as soon as reasonably practicable. Remove heavily contaminated clothing and wash underlying skin.
In extreme situations of saturation with this product, drench with water, remove clothing as soon as possible and wash skin with soap and water.
Seek medical advice if skin becomes red, swollen or painful.
- If in Eyes:** Wash eye thoroughly with copious quantities of water, ensuring eyelids are held open. Obtain medical advice if any pain or redness develops or persists.

Advice to Doctor:

Treatment should in general be symptomatic and directed to relieving any effects.

Product can be aspirated on swallowing or following regurgitation of stomach contents, and can cause severe and potentially fatal chemical pneumonitis, which will require urgent treatment. Because of the risk of aspiration, induction of vomiting and gastric lavage should be avoided. Gastric lavage should be undertaken only after endotracheal intubation. Monitor for cardiac dysrhythmias.

Section 5. Fire Fighting Measures

Hazard Type	Flammable Liquid
Hazards from decomposition products	May form significant quantities of carbon monoxide
Suitable Extinguishing media	Use alcohol resistant foam , dry powder or water fog. Do not use water jets.
Precautions for firefighters and special protective clothing	Firefighters should wear NIOSH/MSHA approved self-contained breathing apparatus and full fire protective clothing. Evacuate unnecessary personnel and onlookers. Persons who have been exposed to smoke should be checked by a physician.
HAZCHEM CODE	3YE

Other Information : Fire Prevention

Light hydrocarbon vapours can build up in the headspace of tanks. Tank headspaces should always be regarded as potentially flammable and care should be taken to avoid static electrical discharge and all ignition sources during filling, ullaging and sampling from storage tanks. When the product is pumped (e.g. during filling, discharge or ullaging) and when sampling, there is a risk of static discharge. Ensure equipment used is properly earthed or bonded to the tank structure. Electrical equipment should not be used unless it is intrinsically safe (i.e. will not produce sparks). Explosive air/vapour mixtures may form at ambient temperature. If product comes into contact with hot surfaces, or leaks occur from pressurized fuel pipes, the vapour or mists generated will create a flammability or explosion hazard. Product contaminated rags; paper or material used to absorb spillages, represent a fire hazard, and should not be allowed to accumulate. Dispose of safely immediately after use. Empty containers represent a fire hazard as they may contain some remaining flammable product and vapour. Never cut, weld, solder or braze empty containers.

Section 6. Accidental Release Measures

As this product has a very low flash point any spillage or leak is a severe fire and/or explosion hazard. Spilled material may make surfaces slippery. It is advised that stocks of suitable absorbent material should be held in quantities sufficient to deal with any spillage, which may be reasonably anticipated.

- Vapour is heavier than air and may travel to remote sources of ignition (eg. along drainage systems, in basements etc.).
- Isolate spillage from all ignition sources including road traffic.
- Evacuate all non essential personnel from the immediate area.
- If spillage has occurred in a confined space, ensure adequate ventilation and check that a safe, Breathable atmosphere is present before entry.
- Ensure good ventilation.

- Wear protective clothing. See Exposure Controls/Personal Protection, section 8, of this SDS
- Large and uncontained spillages should be smothered with foam to reduce the risk of ignition.
- The foam blanket should be maintained until the area is declared safe.
- Recovery of large spillages should be affected by specialist personnel.
- Protect drains from potential spills to minimize contamination. Do not wash product into drainage system. In the case of spillage on water, prevent the spread of product by the use of suitable barrier equipment. Recover product from the surface.
- Protect environmentally sensitive areas and water supplies.
- Regular surveillance on the location of the spillage should be maintained.
- In the event of spillages contact the appropriate authorities.

Section 7. Handling and Storage

Approved Handlers:

Approved Handler requirements are triggered for this product. See Section 15

Hazardous Atmosphere Zones

Wherever 50 L or more of E85 petrol is stored the Person in Charge of a place of work must establish one or more hazardous atmosphere zones.

Precautions for safe handling:

- Ensure good ventilation and avoid prolonged contact with skin and eyes.
- If splashing likely to occur wear a full face visor or goggles.
- Avoid breathing vapours.
- Do not siphon product by mouth
- Do not eat, drink or smoke whilst using.
- Take all necessary precautions against accidental spillage into soil or water.

Conditions for safe storage:

- Store and dispense only in well ventilated areas away from heat and sources of ignition.
- Store and use only in equipment/containers designed for use with this product.
- Containers must be properly labeled and kept closed when not in use.
- Do not remove warning labels from containers.
- Empty packages may contain some remaining product. Retain hazard warning labels on empty packages as a guide to the safe handling, storage and disposal of empty packaging.
- Do not enter storage tanks without breathing apparatus unless the tank has been well ventilated and the tank atmosphere has been shown to contain hydrocarbon vapour concentrations of less than 1% of the lower flammability limit and an oxygen concentration of at least 20% volume.
- Always have sufficient people standing by outside the tank with appropriate breathing apparatus and equipment to affect a quick rescue.

Section 8 Exposure Controls / Personal Protection

National Exposure Standards:

If vapour, mists or fumes are generated, their concentration in the workplace air should be controlled to the lowest reasonably practicable level.

Relevant exposure limits are:

Substance	CAS # (a)	WES ppm	STEL ppm
Petrol	86290-81-5	900 ppm (8 hr twa)	500
Benzene	71-43-2	5 ppm (8 hr twa)	5
Ethanol	64-17-5	1000 ppm (1880 mg / m ³)	

Carcinogen category notice: Category A1. Established human carcinogen known to be carcinogenic to humans. There is sufficient evidence to establish a causal association between human exposure to these

substances and the development of cancer. See Chapter 7: Carcinogens, published by the Occupational Safety and Health Service, Department of Labour.

Carcinogen Category A1 (Confirmed Human Carcinogen)

Note: Several comprehensive reviews have been made of benzene toxicity over the recent years. It is not, therefore, the intention of this documentation to exhaustively review all related scientific literature, but to summarise the available quantitative dose-response information with regard to exposure to low concentrations of benzene. This information was used to provide guidelines for the Exposure Standards Working Group to set an exposure standard for benzene.

Respiratory Protection: If operations are such that exposure to vapour, mist or fume may be anticipated, and then suitable approved respiratory equipment should be worn. The use of respiratory equipment must be strictly in accordance with the manufacturers' instructions and any statutory requirements governing its selection and use.

Body Protection: Wear face visor or goggles in circumstances where eye contact can accidentally occur. If skin contact is likely, wear impervious protective clothing and/or gloves. Protective clothing should be regularly inspected and maintained; overalls should be dry-cleaned, laundered and preferably starched after use.

Section 9 Physical and Chemical Properties

Physical State:	Liquid
Colour:	Yellow
Odour:	Gasoline like
pH:	Not applicable
Solubility:	In low concentrations of water it is miscible. In higher concentrations of water the petrol will separate out as a top layer.
Density:	735 kg/m ³ @ 15°C Test Method: ASTM D 1298
Boiling point:	30-230 °C Test method: ASTM D 86
Auto Ignition Point: (petrol)	450 °C (approx)
Flash Point:	-29°C – 20°C (PMC) Test Method: ASTM D 93
Specific Gravity at 15.6 °C:	0.735 g/ml ASTM D 1298
Lower Explosive Limits (LEL):	1.4%
Upper Explosive Limits (UEL):	19% (pure petrol 7.7%)
Volatiles:	99%
Evaporation Rate	High

Section 10. Stability and Reactivity

Chemical Stability:	Stable at ambient temperatures
Conditions to Avoid:	Sources of ignition. Avoid excessive heat
Incompatibility:	Avoid contact with strong oxidizing agents
Hazardous Decomposition Products:	Thermal decomposition products will vary with conditions. Decomposition Incomplete combustion will generate smoke, carbon dioxide and hazardous gases, including carbon monoxide
Hazardous Polymerization:	Hazardous polymerization reactions will not occur.

Section 11 Toxicological Information

(as straight petrol)
Acute Oral Toxicity

LD₅₀ Rat (oral) > 5000mg/kg (slightly toxic)

Acute Dermal Toxicity **LD₅₀ Rabbit (dermal)** >2000 mg/kg (moderately toxic)

Acute Inhalation Toxicity **LD₅₀ Rat (inhalation)** >2500 mg/m³ (moderately toxic)

Inhalation:

Likely to be irritating to the respiratory tract if high concentrations of mists or vapour are inhaled.

May cause nausea, dizziness, headaches and drowsiness if high concentrations of vapour are inhaled.

ABUSE: Abuse involving deliberate inhalation of very high concentrations of vapour, even for short periods, can produce unconsciousness and/or result in a sudden fatality.

Ingestion:

Unlikely to cause harm if accidentally swallowed in small doses, though larger quantities may cause nausea and diarrhoea. Will injure the lungs if aspiration occurs, eg. during vomiting. As with all similar products, frequent or prolonged contact may defat the skin and lead to dermatitis.

Skin:

Likely to cause skin irritation. Likely to result in chemical burns following prolonged wetting of the skin. (eg. after a road traffic accident).

Eye:

Unlikely to cause more than transient stinging or redness if accidental eye contact occurs.

Subchronic/Chronic Toxicity

Carcinogenicity/Chronic Toxicity

Exposure to benzene may result in affects to the hematopoietic system causing blood disorders including anaemia and leukaemia. Benzene is classified by NOHSC as a category 1 carcinogen -substances known to be carcinogenic to man. IARC assessment: benzene -carcinogenic to humans (Group 1)

Section 12. Ecological Information

HSNO Classifications: 9.1B

Product classed as Dangerous for the Environment. Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment. Spills may form a film on water surfaces causing physical damage to organisms. Oxygen transfer could also be impaired. On release to water gasoline floats on the surface and hydrocarbons are lost through volatilization.

Persistence and Degradability:

This product is inherently biodegradable.

Bioaccumulative Potential:

There is no evidence to suggest bioaccumulation will occur.

Mobility:

Spillages may penetrate the soil causing ground water contamination.

Section 13. Disposal Considerations

Dispose of via an authorized person/licensed waste disposal contractor in accordance with local regulations. Empty packages may contain some remaining product. Hazard warning labels are a guide to the safe handling of empty packaging and should not be removed. Empty containers represent a fire hazard as they may contain flammable product residues and vapour. Never weld, solder or braze empty containers. Materials contaminated with product should be treated as extremely flammable. Disposal should be in accordance with local regulations

Section 14 Transport Information

This material is classified as a Class 3 - Flammable Liquid according to NZS 5433:2007 Transport of Dangerous Goods on Land.

Must not be loaded in the same freight container or on the same vehicle with:

- (Class 1) Explosives
- (Class 2.1) Flammable gases
- (Class 2.3) Toxic gases
- (Class 4.2) spontaneously combustible substances
- (Class 5.1) Oxidizing substances
- (Class 5.2) Organic peroxides or
- (Class 7) Radioactive materials unless specifically exempted.

Must not be loaded with in the same freight container; and on the same vehicle must be separated horizontally by at least 3 meters unless all but one are packed in separate freight containers with:

- (Class 4.3) Dangerous when wet substances
- Goods of packing group II or III may be loaded in the same freight container or on the same vehicle if transported in segregation devices with:
- (Class 4.2), spontaneously combustible substances
 - (Class 4.3), Dangerous when wet substances
 - (Class 5.1), Oxidizing substances
 - (Class 5.2) Organic peroxides

Land Transport:

U.N. Number: 1203
 Proper Shipping Name : PETROL
 DG Class: 3
 Hazchem Code: 3YE
 Packaging Method: 3.8.3
 Packing Group: II

Marine Transport:

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

UN-Number: 1203
 Class: 3 Flammable Liquid
 Packing Group: II
 Proper Shipping Name: PETROL
 EmS: 3-07
 Stowage and Segregation Category: E

Air Transport

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

UN-Number: 1203
 Class: 3 Flammable Liquid
 Packing group: II
 Proper Shipping Name: PETROL
 EPG Number: 3.1.001
 IERG Number: 14
 IMO Marine: This product is a marine pollutant according to the International Maritime Dangerous Goods (IMDG) Code.

Section 15	Regulatory Information
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ERMA Approval Code: HSR008039
 HSNO Classifications: 3.1A, 6.1E, 6.3B, 6.4A, 6.7B, 9.1B

HSNO Controls:**This product is exempt from Tracking**

This safety data sheet must be supplied where ≥ 5 L is supplied for the first time to a place of work Trigger quantities for this substance

	Quantity	Triggered by
Approved Handler	>100 L	3.1A * Note 1
A Location Test Certificate is required for a site permanently storing 50 L or more of petrol. See Note 2		
A Location Test Certificate is NOT required for a temporary site storing <2000 litres of E10, petrol, avgas, racing gas or kerosene if the proposed or actual duration of the storage is for a continuous period of less than 14 days. This applies if the fuel -		
a.	is stored in containers <250 litres	
b.	the containers comply with Reg 11, schedule 2 or 3 of the packaging regulations	
c.	is situated not less than 15 metres from any high intensity land use or area of regular habitation	
d.	is situated either in the open or in a well ventilated building	
e.	is in a compound or located so any spillage will not endanger any building, flow into any stream, lake or natural water.	

Signage	250 L	3.1A
Emergency Response Plan	1000 L	3.1A
Secondary containment	1000 L	3.1A

* Note 1: Not required on a farm ≥ 4 ha for quantities less than 2000 L

Not required if refueling vehicles, or filling containers less than 250 L by self service at retail outlets

* Note 2 Not required on a farm \geq 4 ha for quantities less than 2000 L

Section 16	Other Information
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HSNO Approved Code of Practice: Preparation of Safety Data Sheets, September 2006.

Disclaimer This document has been compiled by TCC Ltd on behalf of the manufacturer / distributor of the product and serves as the manufacturer's / distributor's Safety Data Sheet ('SDS'). It is based on information concerning the product which has been provided to TCC by the manufacturer / distributor or obtained from third party sources and is believed to represent the current state of knowledge as to the appropriate safety and handling precautions for the product at the time of issue. Further clarification regarding any aspect of the product should be obtained directly from the manufacturer / distributor. While TCC Ltd has taken all due care to include accurate and up-to-date information in this SDS, it does not provide any warranty as to accuracy or completeness. As far as lawfully possible, TCC Ltd accepts no liability for any loss, injury or damage (including consequential loss) which may be suffered or incurred by any person as a consequence of their reliance on the information contained in this SDS.

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Please contact the New Zealand proprietor, Gull Oil New Zealand , phone +64 9 489-1452, www.gull.biz if further information is required.

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