Product Name: GULL FORCE 10

Common Name: E10 PULP (Gull Unleaded 95 with 10% ethanol)

1. IDENTIFICATION OF THE MATERIAL AND SUPPLIER

Product Name

Gull PULP 95 plus 10% ethanol

Brand Name

Gull Force 10

Company Name

Gull NZ Ltd

Address

Gull NZ Ltd Head Office: Level 1, 507 Lake Road, Takapuna, Auckland Terminals NZ Ltd: 131 Hewletts Rd, Mt Maunganui, Bay of Plenty

• Emergency Contacts

Gull NZ Ltd General Manager – David Bodger +64 9 4891452

• Recommended 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.

• Other Information

All reasonably practicable steps have been taken to ensure this data sheet and the health, safety and environmental information contained in it is accurate as of the date of specification below. No warranty or representation, express or implied is made as to the accuracy or completeness of the data and information in this data sheet.

The data and advice given apply when the product is sold for the stated application or applications. You should not use the product other than for the stated application or applications without seeking advice from us.

It is the user's obligation to evaluate and use this product safely and to comply with all applicable laws and regulations. The Gull group shall not be responsible for any damage or injury resulting from use, other than the stated product use of the material, from any failure to adhere to recommendations, or from any hazards inherent in the nature of the material. Purchasers of the product for supply to a third party for use at work, have a duty to take all necessary steps to ensure that any person handling or using the product is provided with the information in this sheet. Employers have a duty to tell employees and others who may be affected of any hazards described in this sheet and of any precautions that should be taken.

2. HAZARDS IDENTIFICATION

Hazard Classification

Classified as hazardous:

Extremely flammable liquid. Explosive air / vapour mixtures may form at ambient temperature. Likely to cause skin irritation. May cause cancer, classified as a category 1 carcinogen.

Contains Benzene. Prolonged or repeated exposure to benzene can cause anaemia and other blood diseases, including leukaemia.

Harmful if swallowed – aspiration hazard.

Vapours may cause drowsiness and dizziness. Vapour is heavier than air and may travel to remote sources of ignition (eg. Along drainage systems, in basements etc)

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.

• Risk Phrase(s)

Classified as hazardous:

R12 Extremely Flammable

R38 Irritating to skin

R48 / 20 / 21 / 22 Harmful: danger of serious damage to health to prolonged exposure through inhalation, in contact with skin and if swallowed.

R65 Harmful: may cause lung damage if swallowed

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• Safety Phrase(s)

S16 Keep away from sources of ignition – No smoking

S2 Keep out of reach from children

S23 Do not breathe gas / fumes / spray

S23 Do not breathe vapour

S24 Avoid contact with skin

S29 Do not empty into drains

S33 Take precautionary measures against static discharges

S43 (1) In case of fire use alcohol resistant foam / dry powder / CO2. Never use water

S45 In case of accident or if you feel unwell seek medical advice immediately (show label where possible)

S51 Use only in well ventilated areas

S53 Avoid exposure – obtain special instructions before use

S62 If swallowed, do not induce vomiting; seek medical advice immediately and show this container or label

3. COMPOSITION / INFORMATION ON INGREDIENTS

• Information on Composition

A complex mixture of volatile hydrocarbons, containing paraffins, naphthens, olefins and aromatics, with carbon numbers predominately between C4 and C12. May contain oxygenates. May also contain small quantities of proprietary performance additives

Hazardous Components.

Benzene, 71-43-2, R11 Highly flammable, R45 may cause cancer, R48 / 23 / 24 / 25

Toxic: Danger of serious damage to health by prolonged exposure through inhalation, in contact with skin and if swallowed

<4% Toluene, CAS No. 108-88-3, R11 Highly Flammable, R20 Harmful by inhalation

<10% Xylene, CAS No. 1330-20-7, R10 Flammable, R20 / 21 Harmful by inhalation and in contact with skin, R38 Irritating to skin

<10% Ethanol, CAS No. 64-17-5

4. FIRST AID MEASURES

Inhalation

If exposure to vapour, mists or fumes causes drowsiness, headache, blurred vision or irritation to 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.

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.

Eyes

Wash eyes 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

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5. FIRE FIGHTING MEASURES

• Fire Fighting Measures

For major fires call the Fire Service. Ensure an escape path is always available from any fire.

There is a danger of a flashback if sparks or hot surface ignites vapour.

Use foam, dry powder or water fog. **DO NOT** use water jets.

NB: Foam must be alcohol resistant

Fires in confined spaces should be dealt with by trained personnel wearing approved breathing apparatus. Any spillage should be regarded as a potential fire risk.

• Hazards from Combustion Products

Toxic fumes may be evolved on burning or exposure to heat. See Stability and Reactivity, Section 10 of this Safety Data Sheet.

• Hazchem Code

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6. ACCIDENTAL RELEASE MEASURES

• Emergency Procedures

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 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 Safety Data Sheet.

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 effected 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 speed 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.

7. HANDLING AND STORAGE

Precautions for Safe Handling

Ensure good ventilation and avoid as far as reasonably practicable the inhalation and contact with vapours, mists or fumes, which may be generated during use. If such vapours, mists or fumes are generated, their concentration in the workplace air, should be controlled to the lowest reasonably practicable level.

Avoid contact with skin and observe good personal hygiene.

Avoid contact with eyes. If splashing is likely to occur wear a full face visor or chemical goggles as appropriate.

Do not siphon product by mouth.

Whilst using do not eat, drink or smoke.

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 for use with this product. Containers must be properly labeled and kept closed when not in use.

Do not remove warning labels from containers.

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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 effect a quick rescue.

Keep out of reach of children

• Other Information

Fire Prevention.

Light hydrocarbons 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 (eg. 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 s intrinsically safe (ie. 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 pressured 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.

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

National Exposure Standards

Ensure good ventilation. Avoid, as far as reasonably practicable, inhalation of vapour, mists or fumes generated during use. 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:

- Petrol (Gasoline) NOHSC Exposure Standard: TWA 900mg/m3
- o **Benzene** NOHSC Exposure Standard: 5ppm (similar or equal to: 16mg/m3) (8hr TWA)

Carcinogen category notice: Category 1. Established human carcinogen, known to be carcinogenic to humans. There is sufficient evidence to establish a casual association between human exposure to these substances and the development of cancer.

See Chapter 13: Guidance Note on the Interpretation of Exposure Standards for Atmospheric Contaminants in the Occupational Environment, published by National Occupational Health and safety Commission (NOHSC)

No standard should be applied without reference to the Guidance Note on the Interpretation of Exposure Standards for Atmospheric Contaminants in the Occupational Environment (NOHSC: 3008 (1995)), and to the related documentation. Documentation notice: National Health and Safety Commission (NOHSC) documentation available for these values. Carcinogen Category 1 (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.

- o Toluene NOHSC Exposure Standard: TWA: 100ppm (377 mg/m3). STEL 150ppm (565mg/m3)
- Xylene (0-, m-, p-isomers) NOHSC Exposure Standards: TWA: 80ppm (350mg/m3), STEL 150ppm (655mg/m3)
- Ethyl Alcohol (Ethanol) NOHSC Exposure Standard: TWA: 1000ppm, (1880mg/m3)

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• Respiratory Protection

If operations are such that exposure to vapour, mist or fume may be anticipated 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 and laundered after use.

9. PHYSICAL AND CHEMICAL PROPERTIES

Odour

Gasoline like

• Boiling Point

30 - 230°C Test Method: ASTM D 86

• Vapour Pressure

30 - 100 kPa @ 20°C Test Method: ASTM D 323

Physical State

Liquid

Colour

Yellow (E10 PULP) Purple (E10 ULP)

Density

735 kg/m³ @ 15°C Test Method: ASTM D 1298

Flash Point

-40°C (PMC) Test Method: ASTM D 93

• Flammable Limits - Lower

1.4%

• Flammable Limits - Upper

7.6%

Other Information Grades:

Gull Regular / Premium Unleaded with 10% ethanol

10. STABILITY AND REACTIVITY

• Chemical Stability

Stable at ambient temperatures.

Conditions to Avoid

Sources of ignition

Avoid excessive heat.

• Incompatible Materials

Avoid contact with strong oxidizing agents.

Hazardous Decomposition Products

Thermal decomposition products will vary with conditions.

Incomplete combustion will generate smoke, carbon dioxide and hazardous gases, including carbon monoxide.

Hazardous Polymerization

Hazardous polymerisation reactions will not occur.

11. TOXICOLOGICAL INFORMATION

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

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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).

Eve

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)

12. ECOLOGICAL INFORMATION

• Persistence / Degradability

This product is inherently biodegradable.

Mobility

Spillages may penetrate the soil causing ground water contamination.

• Bioaccumulative Potential

There is no evidence to suggest bioaccumulation will occur.

• Acute Toxicity - Other Organisms

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.

13. DISPOSAL CONSIDERATIONS

• Disposal Considerations

Dispose of via an authorised 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.

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14. TRANSPORT INFORMATION

IERG Number -

• Transport Information - IATA/ICAO: PETROL, UN 1203, Class 3, Flammable liquid, Packing Group II IMO: PETROL, UN 1203, Class 3, Flammable liquid, Packing Group II

U.N. Number - 1203
Proper Shipping Name - PETROL

DG Class - 3
Hazchem Code - 3[Y]E
Packaging Method - 3.8.3
Packing Group - II
EPG Number - 3.1.001

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15. REGULATORY INFORMATION

• Regulatory Information

Classified as a Toxic hazardous substance using the National Occupational Health & Safety Commission (NOHSC) criteria.

Fuels are exempt from the Standard Uniform Schedule for Drugs and Poisons, except when packed in containers having a capacity of 20 litres or less.

Classified as a Scheduled 5 (S5) Poison using the criteria in the Standard Uniform Schedule for Drugs and Poisons.

- Poisons Schedule S5
- Hazard Category

Toxic,Irritant,Extremely Flammable

16. OTHER INFORMATION

Other Information

Compiled by: Health, Safety, Environment and Security Division.



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