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NOHSC 16 Section

Material Safety Data Sheet

AUTOMOTIVE LIQUIFIED PETROLEUM GAS

Infosafe™ No. FAD43 **Issue Date** November 2009 **Status** ISSUED by CALTEX BS: 1.10.9

Not classified as hazardous according to criteria of NOHSC

1. IDENTIFICATION OF THE MATERIAL AND SUPPLIER

Product Name AUTOMOTIVE LIQUIFIED PETROLEUM GAS

Company Name Caltex Australia Petroleum Pty Ltd (ABN 17 000 032 128)

Address 2 Market Street, Sydney
NSW 2000

Emergency Tel. 1800 033 111

Telephone/Fax Number Tel: (02) 9250 5000
Fax: (02) 9250 5742

Recommended Use Automotive fuel.

Other Names

Name	Product Code
LPG	
AUTOMOTIVE LPG	

2. HAZARDS IDENTIFICATION

Hazard Classification

DANGEROUS GOODS.
NON-HAZARDOUS SUBSTANCE.

Dangerous goods classification according to the Australian Dangerous Goods Code.
Hazard classification according to the criteria of NOHSC.

Risk Phrase(s)

R12 Extremely Flammable.

Safety Phrase (s)

S9 Keep container in a well ventilated place.
S16 Keep away from sources of ignition - No smoking.
S33 Take precautionary measures against static discharges.

3. COMPOSITION/INFORMATION ON INGREDIENTS

Composition, information on ingredients

This product contains less than 0.1%w/w 1,3 butadiene.

Ingredients

Name	CAS	Proportion
Butane	68478-32-0	0-40 %
Ethyl mercaptan	75-08-1	0-<=0.005 %
Gases, petroleum, gas recovery plant depropanizer overheads	68477-94-1	60-100 %
Propylene (C3H6)	115-07-1	0-25 %

4. FIRST AID MEASURES

Inhalation

If inhaled, remove affected person from contaminated area. Keep at rest until recovered. If symptoms develop seek medical attention.

Ingestion	If swallowed, do NOT induce vomiting. Immediately wash mouth out with water. Seek immediate medical attention.
Skin	Remove all contaminated clothing. Wash gently and thoroughly with water and non-abrasive soap. Ensure contaminated clothing is washed before re-use or discard. If symptoms develops and persists, seek medical attention.
Eye	If in eyes, hold eyelids apart and flush the eyes continuously with running water. Continue flushing for several minutes until all contaminants are washed out completely. If symptoms develop and persist seek medical attention.
First Aid Facilities	An eye wash fountain and a general washing facility.
Advice to Doctor	Treat symptoms with reference to specific health effects.
Other Information	For advice may contact the Poisons Information Centre (Australia phone 131 126) or a doctor at once.

5. FIRE FIGHTING MEASURES

Suitable Extinguishing Media	Stop flow of gas. Do NOT extinguish flame until gas flow stops. Use carbon dioxide, dry chemical or water spray.
Hazards from Combustion Products	Under fire conditions this product may emit toxic and/or irritating fumes and gases including carbon monoxide and carbon dioxide.
Specific Hazards	Extremely flammable. Aerosol containers may explode when heated. Keep away from naked flames, sparks and other sources of ignition. Vapour/air mixtures may ignite explosively. Vapours are heavier than air and may flash back if ignited. Aerosols may become projectiles in a fire.
Hazchem Code	2YE

Precautions in connection with Fire	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.

6. ACCIDENTAL RELEASE MEASURES

Emergency Procedures	Remove all sources of ignition. Increase ventilation. Evacuate all unnecessary personnel. Use self-contained breathing apparatus (S.C.B.A) and full protective clothing to minimise exposure. Allow gas to vent safely to atmosphere, preferably in well ventilated, remote location. Monitor oxygen concentration in confined spaces. Wear air-supplied mask. Check for leaks using pressure drop test or soapy water on joints and outlets. Shut cylinder valve to stop leak if possible and safe to do so.

7. HANDLING AND STORAGE

Precautions for Safe Handling	Use in a well ventilated area. DO NOT store or use in confined spaces. Build up of mists and vapours in the atmosphere must be prevented. Prevent concentration in hollows and sumps. Product contains an asphyxiant therefore do not enter these areas until atmosphere has been checked. Avoid breathing in spray or mists or vapours. Do not use near welding or other ignition sources and avoid sparks. Do not smoke. When dealing with large quantities, repeated or prolonged skin exposure without protection should be prevented in order to lessen the possibility of skin disorders. Maintain high standards of personal hygiene ie. washing hands prior to eating, drinking, smoking or using toilet facilities.

Conditions for Safe Storage

Store in a cool, dry, well-ventilated area away from heat, sources of ignition, oxidising agents, foodstuffs, and clothing and out of direct sunlight. Protect containers against physical damage. Inspect regularly for deficiencies such as damage or leaks. Have appropriate fire extinguishers available in and near the storage area. Do NOT pressurise, cut or heat aerosol containers. Content is under pressure and can explode violently. For information on the design of the storeroom, reference should be made to Australian Standard AS1940 - The storage and handling of flammable and combustible liquids. Reference should also be made to all Local, State and Federal regulations.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

National Exposure Standards

No value assigned for this specific material by the Australian National Occupational Health and Safety Commission (NOHSC). However, see above for the constituents. As with all chemicals, exposure should be kept to lowest possible levels.

This product contains an asphyxiant and the minimum oxygen content in air should be 18% by volume under normal atmospheric pressure.

Biological Limit Values

No biological limits allocated.

Engineering Controls

Provide sufficient ventilation to keep airborne levels to least possible levels. Where natural ventilation is inadequate, a flameproof exhaust ventilation system is recommended. Provide electrical earthing and equipment useable in explosive atmospheres. Refer to AS 1940-The storage and handling of flammable and combustible liquids and AS 2430-Explosive gas atmospheres for further information concerning ventilation requirements.

Respiratory Protection	Avoid breathing of vapours/mists. Where ventilation is inadequate the use of an approved respirator with filter complying with AS/NZS 1715 and AS/NZS 1716 is recommended; however final choice of appropriate breathing protection is dependant upon actual airborne concentrations and the type of breathing protection required will vary according to individual circumstances. Expert advice may be required to make this decision. Reference should be made to Australian Standards AS/NZS 1715- Selection, Use and Maintenance of Respiratory Protective Devices; and AS/NZS 1716- Respiratory Protective Devices.
Eye Protection	Chemical safety glasses or face shield recommended as appropriate. Final choice of appropriate eye/face protection will vary according to individual circumstances including methods of handling or engineering controls as determined by appropriate risk assessments. Eye protection should conform to Australian/New Zealand Standard AS/NZS 1337- Eye Protectors for Industrial Applications.
Hand Protection	Impervious gloves recommended as appropriate. Final choice of appropriate glove type will vary according to individual circumstances, including methods of handling or engineering controls as determined by appropriate risk assessments. Refer to AS/NZS 2161 Occupational protective gloves- Selection, use and maintenance.
Body Protection	Suitable protective workwear, e.g. cotton overalls buttoned at neck and wrist is recommended. Chemical resistant apron is recommended where large quantities are handled. Industrial clothing should conform to the specifications detailed in AS/NZS 2919: Industrial clothing.

9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance	Clear colourless liquid (under pressure), colourless gas, with a pungent odour.
Melting Point	Not applicable
Boiling Point	-50 to -20°C

Solubility in Water	Not applicable
Specific Gravity	0.53 at 15°C
pH Value	Not Applicable
Vapour Pressure	1500 kPa at 40°C
Vapour Density (Air=1)	1.56
Flash Point	-100°C (closed-cup)
Flammability	Extremely flammable
Auto-Ignition Temperature	450°C
Flammable Limits - Lower	9.5%
Flammable Limits - Upper	2.3%

10. STABILITY AND REACTIVITY

Chemical Stability	Stable under normal conditions of storage and handling.
Conditions to Avoid	Extremes of temperature.
Incompatible Materials	Oxidising agents.
Hazardous Decomposition Products	Thermal decomposition may result in the release of toxic and/or irritating fumes including carbon monoxide and carbon dioxide.

Hazardous Reactions May react vigorously with oxidising materials.

Hazardous Polymerization Will not occur.

11. TOXICOLOGICAL INFORMATION

Toxicology Information No toxicity data available for this product.

Inhalation Simple asphyxiant. Vapours or mists generated in confined and/or poorly ventilated areas, may cause respiratory system irritation, headache, nausea and dizziness. Deliberate misuse of aerosol sprays can have an adverse affect on the central nervous system, resulting in confusion, lack of coordination, can cause hallucinations, perceptual distortions and euphoria. Solvent misuse can cause death.

Ingestion Not a likely route of exposure due to form of product.

Skin May cause irritation to skin. Symptoms may include redness and itchiness. Repeated or prolonged skin contact may lead to dermatitis. Compressed liquid can cause frostbite type burns.

Eye Eye contact and high concentration of solvent vapour may cause slight to moderate eye irritation, symptoms including redness, excessive tearing, stinging and swelling. Compressed liquid can cause frostbite type burns.

12. ECOLOGICAL INFORMATION

Ecotoxicity Not available

Persistence / Degradability Not available

Mobility Not available

Environment Protection	Do not allow product to enter drains, waterways or sewers.

13. DISPOSAL CONSIDERATIONS

Disposal Considerations	Dispose of waste according to applicable local and national regulations.

14. TRANSPORT INFORMATION

Transport Information	This material is classified as a Division 2.1 (Flammable Gases) Dangerous Goods according to the Australian Code for the Transport of Dangerous Goods by Road or Rail. Division 2.1 Dangerous Goods are incompatible in a placard load with any of the following: - Class 1, Explosives - Division 2.2 Non-flammable, Non toxic gas that have a subsidiary risk 5.1 except when all are packed in cylinders or pressure drums not exceeding 500L capacity. - Class 3, Flammable Liquids, if both the Division 2.1 and Class 3 dangerous goods are in tanks or other receptacles with a capacity individually exceeding 500L. - Division 4.1, Flammable Solids - Division 4.2, Spontaneously Combustible Substances - Division 4.3, Dangerous When Wet Substances - Division 5.1, Oxidising Agents - Division 5.2, Organic Peroxides - Class 7, Radioactive Substances
U.N. Number	1075
Proper Shipping Name	PETROLEUM GASES, LIQUEFIED
DG Class	2.1
Hazchem Code	2YE
EPG Number	2.1.001

IERG Number 04

15. REGULATORY INFORMATION

Regulatory Information Not classified as Hazardous according to criteria of National Occupational Health & Safety Commission (NOHSC), Australia.
Not classified as a Scheduled Poison according to the Standard for the Uniform Scheduling of Drugs and Poisons (SUSDP).

Poisons Schedule Not Scheduled

Hazard Category Extremely Flammable

AICS (Australia) All components of this product are listed on the Australian Inventory of Chemical Substances (AICS).

16. OTHER INFORMATION

Date of preparation or last revision of MSDS MSDS Reviewed: November 2009
MSDS Supersedes: June 2009

Contact Person/ Point CHEMICAL EMERGENCIES: 1 800 033 111
TECHNICAL ADVICE: 1300 364 169
Health & Safety Advisor
Tel: (02) 9250 5822 and (02) 9250 5734
PLEASE NOTE that although every care has been taken in compiling the above information, it is solely reliant upon data available to us at the date hereof. We believe the data to be correct, however for the reason just stated we are not in a position to warrant its accuracy. With that in mind and given that the full range of possibilities and conditions under which the information may be applied simply cannot be anticipated, YOU ARE CAUTIONED to make your own determinations as to the veracity and the

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