MATERIAL SAFETY DATA SHEET (MSDS)
LIQUEFIED PETROLEUM GAS AND PROPANE

Please ensure that this MSDS is received by the appropriate person

DATE: March 2017
Version 3

Ref No: MS111

1 PRODUCT AND COMPANY IDENTIFICATION

PRODUCT IDENTIFICATION

Product Name: HANDIGAS (LIQUEFIED PETROLEUM GAS)
Chemical Formula: C3H6 PLUS C4 H10 PLUS C3 H6
Trade name: Handigas
Colour Coding: Plateau Dark Admiralty Grey (SABS 1091 – G.12) body, with a Handigas decal affixed to the cylinder. All cylinders fitted with an internal eductor tube for liquid withdrawal shall be clearly marked with two Yellow (B.49) stripes painted diametrically opposite each other along the length of the cylinder.

Valve: Brass 5/8 inch BSP left hand female, either single or two-way outlet.

Company Identification: African Oxygen Limited
23 Webber Street
Johannesburg, 2000
Tel: No: (011) 490-0400
Fax: No: (011) 490-0506

EMERGENCY NUMBER 0860 020202 or +27(0) 11 821 3000
(24 hours)

2 COMPOSITION/INFORMATION ON INGREDIENTS

Chemical Name: Butane / Propene / Propylene
Chemical Family: Aliphatic Hydrocarbon
CAS NO. BUTANE 106-97-8 UN NO. 1075
Propane 74-98-6 UN NO. 1978
Propylene 115-07-0 UN NO. 1077
UN No. 1075
ERG No. 115
Hazard Warning: 2A Flammable gas

3 HAZARDS IDENTIFICATION

Vapourised liquefied petroleum gas is highly flammable and can form explosive mixtures with air. The vapourised liquid does not support life. It can act as a simple asphyxiant by diluting the concentration of oxygen in the air below the levels necessary to support life. It can act as a simple asphyxiant.

Adverse Health effects

The liquefied petroleum gases are not-toxic. Prolonged inhalation of high concentrations has an anaesthetic effect.

Chemical Hazards

Propane and butane (known as extensively in commercial and popular terms as LPGas or LPG) have an extremely wide range of domestic, industrial, commercial, agricultural and industrial combustion engine uses. It is estimated that two gases, un-mixed and in mixtures, have several thousand industrial applications and many more in other fields. Their very broad application stems from their occurrences as hydrocarbons between natural gas and natural gasoline, and from their corresponding properties. As a result of their wide application, misuse could result in serious chemical hazards.

Biological Hazards

Contact with the liquid phase of liquefied petroleum gases with the skin can result in frostbite.

Vapour Inhalation

As the vapourised liquid act as a simple asphyxiant death may result from errors in judgement, confusion, or loss of consciousness which prevents self-rescue. At low oxygen concentrations, unconsciousness and death may occur in seconds without warning.

Eye Contact

The liquid can cause severe burns-like injuries.

Skin Contact

Contact with the liquid phase can cause severe burn-like injuries.

Ingestion

No known effect

4 FIRST AID MEASURES

Prompt medical attention is mandatory in all cases of overexposure to vapourised liquefied petroleum gas. Rescue personnel should be equipped with self-contained breathing apparatus. In the event of frostbite from contact with the liquid phase, place the frost biten part in warm water, about 40–42°C. If warm water is not available, or is impractical to use, wrap the affected part gently in blankets. Encourage the patient to exercise the affected part whilst it is being warmed. Do not remove clothing whilst frosted. Conscious persons should be assisted to an uncontaminated area and inhale fresh air. Quick removal from the contaminated area is most important. Unconscious persons should be removed to an uncontaminated area, and given mouth-to-mouth resuscitation and supplemental oxygen.

Eye contact (with liquid phase)

Treated with tepid water, or with sterile saline solution

Skin Contact

Seek medical attention

Ingestion

No known effect

5 FIRE FIGHTING MEASURES

Extinguish means

Do not extinguish fire unless the leakage can be stopped. DO NOT USE WATER JET. Use dry chemical, CO2 or foam.

Specific Hazards

The rupturing of cylinders or bulk containers due to excessive exposure to fire could result in a BLEVE (Boiling Liquid expanding Vapour Explosion), with disastrous effects. As the flammability limits in the air for the main constituents of liquefied petroleum gas vary between approximately 2 and 11% by vol, extreme care must be taken when handling leaks.

Emergency actions

If possible shut off the source of spillage. Evacuate area. Post noisily "Naked lights – No Smoking". Prevent liquid or vapour from entering sewers, basements and workpits. Keep cylinders or bulk vessels cool by spraying water if exposed to fire. If tanker has overturned, do not attempt to right or move it. CONTACT THE NEAREST AFROX BRANCH.

Protective Clothing

Self-contained breathing apparatus. Safety gloves and shoes, or boots, should be worn when handling containers.

Environmental precautions

Vapourised liquefied petroleum gas is heavier than air and could form pockets of oxygen-deficient atmosphere in low lying areas.

6 ACCIDENTAL RELEASE MEASURES

Personal Precautions

Do not enter any area where liquefied petroleum gas has been spilled unless tests have shown that it is safe to do so.

Environmental Precautions

The danger of widespread formation of explosive LPG/air mixtures should be taken into account. Accidental ignition could result in massive explosion.

Small spills

DO NOT extinguish the fire unless the leakage can be stopped immediately. Once the fire has been extinguished and all spills have been stopped, ventilate the area.

Large spills