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## SECTION 1: Identification of the substance/mixture and of the company/undertaking

### 1.1. Product identifier

Trade name	Propane 18% - n-Butane 82%
Chemical description	Propane 18% - n-Butane 82%
CAS N°	-
CE N°	-
Index N°	-
Registration n°	-
Chemical formula	C <sub>3</sub> H <sub>8</sub> – C <sub>4</sub> H <sub>10</sub>

### 1.2. Relevant identified uses of the substance or mixture and uses advised against

Relevant identified uses	Industrial and professional Test gas/Calibration gas Laboratory use Chemical reaction / Synthesis Use as a fuel Contact supplier for more information on uses
Uses advised against	Consumer use not recommended

### 1.3. Details of the supplier of the safety data sheet

Company identification	MULTIGAS Route de l'Industrie 102 CH-1564 Domdidier
Phone number	+41 (0) 26 676 94 94
E-mail address	<a href="mailto:info@multigas.ch">info@multigas.ch</a>

### 1.4. Emergency telephone numbers


145 (Toxicology Centre Zurich) or +41 (0) 44 251 51 51  
 +41 (0) 26 676 94 94 (Multigas)

## SECTION 2: Hazards identification

### 2.1. Classification of the substance or mixture

Classification according to Regulation (EC) No. 1272/2008 [CLP]



Physical hazards	Flammable gases, Category 1	H220
	Gases under pressure : Liquefied gas	H280

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For the complete H-sentences texts mentioned in that chapter, refer to Section 16

## 2.2. Label elements

Labelling according to Regulation (EC) No. 1272/2008 [CLP]

<b>Hazard pictograms</b>	 
	GHS02      GHS04
<b>Signal word</b>	Danger
<b>Hazard statements</b>	
H220	Extremely flammable gas
H280	Contains gas under pressure; may explode if heated
<b>Precautionary statements</b>	
P210	Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking
P377	Leaking gas fire: Do not extinguish, unless leak can be stopped safely
P381	In case of leakage, eliminate all ignition sources
P410+P403	Protect from sunlight. Store in a well-ventilated place

## 2.3. Other hazards

Contact with liquid may cause cold burns/frostbite


## SECTION 3: Composition/information on ingredients

### 3.1. Substances

Name	Product identifier	Concentration	Classification
n-Butane	(CAS-No.) 106-97-8 (EC-No.) 203-448-7 (EC Index-No.) 601-004-00-0 (Registration-No.) -	82%	Flam. Gas 1, H220 Press. Gas (Liq.), H280
Propane	(CAS-No.) 74-98-6 (EC-No.) 200-827-9 (EC Index-No.) 601-003-00-5 (Registration-No.) 01-2119486944-21	18%	Flam. Gas 1, H220 Press. Gas (Liq.), H280

For the complete H-sentences texts mentioned in that chapter, refer to Section 16

Contains no other components or impurities which will influence the classification of the product

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### 3.2. Mixtures

Not established

## SECTION 4: First aid measures

### 4.1. Description of first aid measures

<b>General advice</b>	See a doctor. Show this safety data sheet to the attending physician
<b>In case of inhalation</b>	In case of inhalation, remove the person from the contaminated area. In case of respiratory arrest, give artificial respiration. See a doctor
<b>In case of skin contact</b>	In case of frostbite spray with water for at least 15 minutes. Apply a sterile dressing. See a doctor
<b>In case of eyes contact</b>	Rinse thoroughly with plenty of water for at least 15 minutes and consult a doctor
<b>In case of ingestion</b>	Do NOT induce vomiting. Never give anything by mouth to an unconscious person. Rinse mouth with water. See a doctor

### 4.2. Most important symptoms and effects, both acute and delayed

Refer to section 11

### 4.3. Indication of any immediate medical attention and special treatment needed

No data available

## SECTION 5: Firefighting measures

### 5.1. Extinguishing media


<b>Suitable extinguishing media</b>	All known extinguishing agents can be used
<b>Unsuitable extinguishing media</b>	Do not use water jet to extinguish

### 5.2. Special hazards arising from the substance or mixture

<b>Specific hazards</b>	In case of fire or excessive heat, hazardous combustion products may be produced Exposure to fire may cause containers to rupture/explode
<b>Hazardous combustion products</b>	In case of fire or excessive heat, hazardous combustion products may be produced such as : carbon monoxide

### 5.3. Additional information

Cool endangered receptacles with water spray jet from a protected position

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**SECTION 6: Accidental release measures**

**6.1. Personal precautions, protective equipment and emergency procedures**

- Avoid breathing vapours, spray mists or gases
- Provide adequate ventilation
- Prevent from entering sewers, basements and workpits, or any place where its accumulation can be dangerous
- Evacuate personnel to a safe place
- Personal protective equipment, see section 8

**6.2. Environmental precautions**

- Try to stop the leak

**6.3. Methods and material for containment and cleaning up**

- Keep area evacuated and free from ignition sources until any spilled liquid has evaporated (ground free from frost)

**6.4. Reference to other sections**

- See also sections 8 and 13

**SECTION 7: Handling and storage**

**7.1. Precautions for safe handling**

- Avoid breathing vapour or mist
- Ensure adequate air ventilation
- Keep away from sources of ignition (including electrostatic charges)
- For precautions, see section 2.2

**7.2. Conditions for safe storage, including any incompatibilities**

- Store in a cool place. Keep container tightly closed in a dry and well-ventilated place
- Content under pressure

**7.3. Specific end use(s)**

- None

**SECTION 8: Exposure controls/personal protection**

**8.1. Control parameters**

Components with occupational exposure limits

**Propane 18% - n-Butane 82%**

**MTGxxx**

Component	CAS N°	Exposure value type	Control parameter	Source
n-Butane	106-97-8	TWA	800 ppm	SUVA: Limit values of exposure to workstations
			1'900 mg/m <sup>3</sup>	
		OEL	3'200 ppm	SUVA: Limit values of exposure to workstations
			7'600 mg/m <sup>3</sup>	
Propane	74-98-6	TWA	1'000 ppm	SUVA: Limit values of exposure to workstations
			1'800 mg/m <sup>3</sup>	
		OEL	4'000 ppm	SUVA: Limit values of exposure to workstations
			7'200 mg/m <sup>3</sup>	

**8.2. Exposure controls**

**8.2.1. Appropriate engineering controls**

Provide adequate general and local exhaust ventilation  
 Gas detectors should be used when flammable / toxic gases / vapours are likely to be released

**8.2.2. Individual protection measures, e.g. personal protective equipment**

**Eye/face protection**

Wear goggles and a face shield when transfilling or breaking transfer connections. Standard EN 166

**Skin / hand protection**

Wear protective gloves The selected protective gloves have to satisfy the specifications of EU Directive 89/686 / EEC and the standard EN 374 derived from it

**For short-term use**

Material: Fluoroelastomer  
 Penetration time:> 30 min  
 Glove thickness: 0.4 mm

**For long-term use**

Material: Fluoroelastomer  
 Penetration time:> 480 min  
 Glove thickness: 0.7 mm

Have appropriate, chemical-resistant protective clothing ready for use in emergencies. Norm EN943-1

**Respiratory protection**

Self-contained breathing apparatus (SCBA) or positive pressure air mask must be used in oxygenated atmospheres. Standard EN 137 - Self-contained compressed air device with a full face mask

**8.2.3. Environmental exposure controls**

-

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**SECTION 9: Physical and chemical properties**
**9.1. Information on basic physical and chemical properties**
**Appearance**


• Physical state at 20°C / 101.3kPa	Gas
• Colour	Colourless
<b>Odour</b>	No data available
<b>Odour threshold</b>	No data available
<b>pH</b>	No data available
<b>Melting point / Freezing point</b>	No data available
<b>Boiling point</b>	No data available
<b>Flash point</b>	No data available
<b>Evaporation rate</b>	No data available
<b>Flammability (solid, gas)</b>	Extremely flammable gas
<b>Explosive limits</b>	No data available
<b>Vapour pressure [20°C]</b>	No data available
<b>Vapour pressure [50°C]</b>	No data available
<b>Vapour density</b>	No data available
<b>Relative density, liquid (water=1)</b>	No data available
<b>Relative density, gas (air=1)</b>	1.92
<b>Water solubility</b>	No data available
<b>Partition coefficient n-octanol/water (Log Kow)</b>	No data available
<b>Auto-ignition temperature</b>	No data available
<b>Decomposition temperature</b>	No data available
<b>Viscosity</b>	No data available
<b>Explosive properties</b>	No data available
<b>Oxidising properties</b>	No data available

**9.2. Other information**

<b>Molar mass</b>	55.48 g/mole
<b>Critical temperature [°C]</b>	No data available
<b>Relative vapour density</b>	Gas/vapour heavier than air. May accumulate in confined spaces, particularly at or below ground level

**SECTION 10: Stability and reactivity**
**10.1. Reactivity**

No reactivity hazard other than the effects described in sub-sections below

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### 10.2. Chemical stability

Stable under recommended storage conditions

### 10.3. Possibility of hazardous reactions

Can form explosive mixture with air  
May react violently with oxidants

### 10.4. Conditions to avoid

Keep away from heat/sparks/open flames/hot surfaces. – No smoking

### 10.5. Incompatible materials

Strong oxidisers  
For additional information on compatibility refer to ISO 11114

### 10.6. Hazardous decomposition products

Under normal conditions of storage and use, hazardous decomposition products should not be produced

## SECTION 11: Toxicological information

### 11.1. Chemical safety assessment

Acute toxicity	No data available
Skin corrosion/irritation	No data available
Serious eye damage/irritation	No data available
Respiratory or skin sensitisation	No data available
Germ cell mutagenicity	No data available
Carcinogenicity	No data available
Reproductive toxicity	No data available
STOT-single exposure – Target organ(s)	No data available
STOT-repeated exposure	No data available
Ingestion hazard	No data available


## SECTION 12: Ecological information

### 12.1. Toxicity

Assessment	No data available
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### 12.2. Persistence and degradability

No data available

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### 12.3. Bioaccumulative potential

No data available

### 12.4. Mobility in soil

No data available

### 12.5. Results of PBT and vPvB assessment

PBT / vPvB assessment is not available because the chemical safety assessment is not required / is not conducted

### 12.6. Other adverse effects

No data available

## SECTION 13: Disposal considerations

### 13.1. Waste treatment methods

<b>Product</b>	<p>Must not be released into the atmosphere</p> <p>Burn in a chemical incinerator equipped with an afterburner and scrubber</p> <p>Return to the supplier the product not consumed in its original container</p>
<b>Contaminated container</b>	<p>Eliminate as unused product</p> <p>Contact the supplier if instructions are needed</p>
<b>OMoD Code</b>	<p>16 05 04</p> <p>Gases in pressure containers containing dangerous substances</p>

## SECTION 14: Transport information

### 14.1. UN number

Transport par road/rail ADR / RID	Transport by sea IMDG	Transport by air IATA
3161	3161	3161

### 14.2. UN proper shipping name


Transport par road/rail ADR / RID	Transport by sea IMDG	Transport by air IATA
LIQUEFIED GAS, FLAMMABLE, N.O.S., (Butane n-, Propane)	LIQUEFIED GAS, FLAMMABLE, N.O.S., (Butane n-, Propane)	LIQUEFIED GAS, FLAMMABLE, N.O.S., (Butane n-, Propane)

### 14.3. Transport hazard class(es)

Labelling





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ADR/RID  
IMDG  
IATA

2.1 : Flammable gases

**14.4. Packing group**

ADR/RID  
IMDG  
IATA

Not established

**14.5. Environmental hazards**

ADR/RID

None

IMDG

None

ICAO-TI / IATA-DGR

None

**14.6. Special precautions for user**

No data available

**14.7. Transport in bulk according to Annex II of Marpol and the IBC Code**

Not applicable

**SECTION 15: Regulatory information**

**15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture**

This safety data sheet complies with the requirements of Regulation (CE) No. 1907/2006

**15.2. Chemical safety assessment**

A CSA has been carried out


**SECTION 16: Other information**

**Indication of changes**

Revised safety data sheet in accordance with commission regulation (EU) No 2015/830

**Abbreviations and acronyms**

ADR : European Agreement concerning the International Carriage of Dangerous Goods by Road  
CAS : Chemical Abstract Service number (USA)  
CLP : Classification Labelling Packaging Regulation; Regulation (EC) No 1272/2008  
CSA : Chemical Safety Assessment  
EIGA : European Industrial Gases Association  
EINECS : European Inventory of Existing Commercial Chemical Substances  
EN : European Standard

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ATE :	Acute Toxicity Estimate
IATA :	International Air Transport Association
IMDG Code :	International Maritime Dangerous Goods Code
LC50 :	Lethal Concentration to 50 % of a test population
OMoD :	Swiss Ordinance on the movement of waste
PBT :	Persistent, Bioaccumulative and Toxic
PPE:	Personal Protection Equipment
REACH :	Registration, Evaluation, Authorisation and Restriction of Chemicals Regulation (EC) No 1907/2006
RID :	Regulations concerning the international carriage of dangerous goods by rail
RMM :	Risk Management Measures
STOT-SE :	Specific Target Organ Toxicity - Single Exposure
UN :	United Nations
vPvB :	Very Persistent and Very Bioaccumulative
WGK:	Water Hazards Class

#### Full text of H, EUH and P statements used in sections 2 and 3

##### Hazard statements

H220	Extremely flammable gas
H280	Contains gas under pressure; may explode if heated

##### Precautionary statements

P210	Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking
P377	Leaking gas fire: Do not extinguish, unless leak can be stopped safely
P381	In case of leakage, eliminate all ignition sources
P410+P403	Protect from sunlight. Store in a well-ventilated place

##### Disclaimer of liability

Details given in this document have been prepared based on the most available reliable documents and are believed to be correct at the time of going to press  
They do not claim to be exhaustive and should be considered as a guide