SAFETY DATA SHEET
Go System Butane Gas Cylinder
According to Regulation (EC) No 1907/2006, Annex II, as amended by Regulation (EU) No 453/2010

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

1.1. Product identifier

Product name	Go System Butane Gas Cylinder
Chemical name	Petroleum gases, liquefied
Product number	2330
Synonyms; trade names	Hydrocarbons C3-C4,LPG
Container size	2.75Kg

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

Identified uses	Fuel
Uses advised against	No specific uses advised against are identified.

1.3. Details of the supplier of the safety data sheet

Supplier

Go Gas Ltd.
Unit 1 B,
East Tame Business Park,
Newton, Hyde,
Cheshire,
SK14 4GX
UK.
www.go-system.co.uk
T: +44 (0) 161 367 1315
F: +44 (0) 161 367 1316
info@gogas.co.uk

1.4. Emergency telephone number

Emergency telephone: +44 (0) 161 367 1315
Mon - Fri 09:00-17:00h (UK)

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

Classification

Physical hazards	Flam. Gas 1 - H220 Press. Gas, Liquefied - H280
Health hazards	Not Classified
Environmental hazards	Not Classified
Classification (67/548/EEC or 1999/45/EC)	F+; R12

2.2. Label elements

Go System Butane Gas Cylinder

Pictogram

Signal word	Danger
Hazard statements	H220 Extremely flammable gas. H280 Contains gas under pressure; may explode if heated.
Exemptions from CLP Article 17 [Article 29(2); Article 23]	The following are not required for labelling:,H280,- 1.3.2. Gas containers intended for propane, butane or liquefied petroleum gas (LPG)
Precautionary statements	P102 Keep out of reach of children. P377 Leaking gas fire: Do not extinguish, unless leak can be stopped safely. P410+P412 Protect from sunlight. Do not expose to temperatures exceeding 50°C/122°F. P403 Store in a well-ventilated place.
Contains	Petroleum gases, liquefied (<0.1% 1,3-butadiene)
Supplementary precautionary statements	P210 Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. P381 Eliminate all ignition sources if safe to do so.

2.3. Other hazards

This substance is not classified as PBT or vPvB according to current EU criteria.

SECTION 3: Composition/information on ingredients

3.1 Substances

Petroleum gases, liquefied (<0.1% 1,3-butadiene) 100%

CAS number: 68476-85-7 EC number: 270-704-2 REACH registration number: 01-2119486557-22-XXXX

Classification	Classification (67/548/EEC or 1999/45/EC)
Flam. Gas 1 - H220 Press. Gas, Liquefied - H280	F+; R12

The Full Text for all R-Phrases and Hazard Statements are Displayed in Section 16.

Product name GoSystem Butane-Propane Mix Gas Cylinder

SECTION 4: First aid measures

4.1. Description of first aid measures

General information	If in doubt, get medical attention promptly. Show this Safety Data Sheet to the medical personnel. Keep affected person away from heat, sparks and flames.
Inhalation	Move affected person to fresh air and keep warm and at rest in a position comfortable for breathing. Loosen tight clothing such as collar, tie or belt. Get medical attention if symptoms are severe or persist. When breathing is difficult, properly trained personnel may assist affected person by administering oxygen.
Ingestion	In the event of an incident leading to contact with the liquid contents: Remove person to fresh air and keep comfortable for breathing. Rinse mouth thoroughly with water. Get medical advice/attention if you feel unwell.

Go System Butane Gas Cylinder

Skin contact	In the event of an incident leading to contact with the liquid contents: Rinse with water. Thaw frosted parts with lukewarm water. Do not rub affected area.
Eye contact	In the event of an incident leading to contact with the liquid contents: Rinse with water. Get medical attention if any discomfort continues.
Protection of first aiders	First aid personnel should wear appropriate protective equipment during any rescue.

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

General information	The severity of the symptoms described will vary dependent on the concentration and the length of exposure.
Inhalation	No specific symptoms known. Overexposure may cause the following adverse effects: Drowsiness, dizziness, disorientation, vertigo.
Ingestion	Due to the physical nature of this product, it is unlikely that ingestion will occur.
Skin contact	No specific symptoms known. In the event of an incident leading to contact with the liquid contents: Contact with liquid form may cause frostbite.
Eye contact	No specific symptoms known. In the event of an incident leading to contact with the liquid contents: Contact with liquid form may cause frostbite.

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

Notes for the doctor	Treat symptomatically.

SECTION 5: Firefighting measures

5.1. Extinguishing media

Suitable extinguishing media	The product is flammable. Extinguish with alcohol-resistant foam, carbon dioxide, dry powder or water fog. Use fire-extinguishing media suitable for the surrounding fire.
Unsuitable extinguishing media	Do not use water jet as an extinguisher, as this will spread the fire.

5.2. Special hazards arising from the substance or mixture

Specific hazards	Containers can burst violently or explode when heated, due to excessive pressure build-up. Vapours may accumulate on the floor and in low-lying areas. Vapours may form explosive mixtures with air.
Hazardous combustion products	Hydrocarbons. Carbon monoxide (CO). Carbon dioxide (CO_2).

5.3. Advice for firefighters

Protective actions during firefighting	Avoid breathing fire gases or vapours. Evacuate area. If involved in a fire, shut off flow if it can be done without risk. Large fires: Allow fire to burn out. Small fires: Fight fire remotely due to the risk of explosion. Cool containers exposed to heat with water spray and remove them from the fire area if it can be done without risk. Cool containers exposed to flames with water until well after the fire is out. If a leak or spill has not ignited, use water spray to disperse vapours and protect men stopping the leak. Control run-off water by containing and keeping it out of sewers and watercourses. If risk of water pollution occurs, notify appropriate authorities.
Special protective equipment for firefighters	Wear positive-pressure self-contained breathing apparatus (SCBA) and appropriate protective clothing. Firefighter's clothing conforming to European standard EN469 (including helmets, protective boots and gloves) will provide a basic level of protection for chemical incidents.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

Personal precautions	Wear protective clothing as described in Section 8 of this safety data sheet. No action shall be taken without appropriate training or involving any personal risk. Evacuate area. Vapours may form explosive mixtures with air. Risk of explosion. Provide adequate ventilation. No smoking, sparks, flames or other sources of ignition near spillage. Promptly remove any clothing that becomes contaminated.

6.2. Environmental precautions

Environmental precautions	Exposure to aquatic environment unlikely.

6.3. Methods and material for containment and cleaning up

Methods for cleaning up	Wear protective clothing as described in Section 8 of this safety data sheet. Clear up spills immediately and dispose of waste safely. Eliminate all ignition sources if safe to do so. No smoking, sparks, flames or other sources of ignition near spillage. Do not allow material to enter confined spaces, due to the risk of explosion. Flush contaminated area with plenty of water. Wash thoroughly after dealing with a spillage. For waste disposal, see Section 13.

6.4. Reference to other sections

Reference to other sections	For personal protection, see Section 8. See Section 11 for additional information on health hazards. See Section 12 for additional information on ecological hazards. For waste disposal, see Section 13.

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Usage precautions	Read and follow manufacturer's recommendations. Wear protective clothing as described in Section 8 of this safety data sheet. Keep away from food, drink and animal feeding stuffs. The product is flammable. Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. Do not handle until all safety precautions have been read and understood. Do not handle broken packages without protective equipment. Do not reuse empty containers.
Advice on general occupational hygiene	Wash promptly if skin becomes contaminated. Take off contaminated clothing. Wash contaminated clothing before reuse.

7.2. Conditions for safe storage, including any incompatibilities

Storage precautions	Keep out of the reach of children. Keep away from food, drink and animal feeding stuffs. Keep away from oxidising materials, heat and flames. Keep only in the original container. Keep container tightly closed, in a cool, well ventilated place. Keep containers upright. Protect containers from damage. Protect from sunlight.
Storage class	Flammable compressed gas storage.

7.3. Specific end use(s)

Specific end use(s)	The identified uses for this product are detailed in Section 1.2.

SECTION 8: Exposure Controls/personal protection

8.1. Control parameters

Occupational exposure limits

Long-term exposure limit (8-hour TWA): WEL 1000 ppm 1750 mg/m³
Short-term exposure limit (15-minute): WEL 1250 ppm 2180 mg/m³

WEL = Workplace Exposure Limit

8.2. Exposure controls

Appropriate engineering controls	Provide adequate ventilation.

Go System Butane Gas Cylinder

Eye/face protection	Avoid contact with eyes. Large Spillages: Eyewear complying with an approved standard should be worn if a risk assessment indicates eye contact is possible.
Hand protection	No specific requirements are anticipated under normal conditions of use. In the event of an incident leading to contact with the liquid contents: Wear protective gloves.
Hygiene measures	Wash hands thoroughly after handling. Do not eat, drink or smoke when using this product. Wash contaminated clothing before reuse.
Respiratory protection	No specific recommendations. Provide adequate ventilation. Large Spillages: If ventilation is inadequate, suitable respiratory protection must be worn.
Environmental exposure controls	Keep container tightly sealed when not in use. Avoid release to the environment.

SECTION 9: Physical and Chemical Properties

9.1. Information on basic physical and chemical properties

Appearance	Gas.
Colour	Colourless.
Odour	Characteristic. Hydrocarbons.
pH	Not relevant.
Melting point	Not relevant.
Initial boiling point and range	-42°C @ 768 mm Hg
Flash point	< 40°C CC (Closed cup).
Evaporation rate	Not determined.
Flammability (solid, gas)	Flammable Gas
Upper/lower flammability or explosive limits	Lower flammable/explosive limit: 5 % Upper flammable/explosive limit: 15 % REACH dossier information. Estimated value.
Vapour pressure	4.1 bar @ 20°C
Vapour density	2.07 (butanes) 1.56 (propane)
Relative density	~ 0.5 @ 15°C
Solubility(ies)	Not relevant.
Partition coefficient	Not relevant.
Auto-ignition temperature	410/550°C
Decomposition Temperature	Not known.
Viscosity	Not relevant.
Explosive properties	Vapours may form explosive mixtures with air.
Oxidising properties	There are no chemical groups present in the product that are associated with oxidising properties.

9.2. Other information

Other information None.

SECTION 10: Stability and reactivity

10.1. Reactivity

Go System Butane Gas Cartridge

Reactivity	There are no known reactivity hazards associated with this product.

10.2. Chemical stability

Stability	Stable at normal ambient temperatures and when used as recommended. Stable under the prescribed storage conditions.

10.3. Possibility of hazardous reactions

Possibility of hazardous reactions	The following materials may react strongly with the product: Oxidising agents.

10.4. Conditions to avoid

Conditions to avoid	Avoid heat, flames and other sources of ignition. Containers can burst violently or explode when heated, due to excessive pressure build-up.

10.5. Incompatible materials

Materials to avoid	Oxidising agents.

10.6. Hazardous decomposition products

Hazardous decomposition products	Does not decompose when used and stored as recommended. Thermal decomposition or combustion products may include the following substances: Harmful gases or vapours. Carbon monoxide (CO). Carbon dioxide (CO2).

SECTION 11: Toxicological information

11.1. Information on toxicological effects

Toxicological effects	Not regarded as a health hazard under current legislation.

Acute toxicity - oral

Notes (oral LD_{50})	Not relevant.

Acute toxicity - dermal

Notes (dermal LD_{50})	Not relevant.

Acute toxicity - inhalation

Acute toxicity inhalation (LC_{50} gases ppmV)	520,400.0
Species	Mouse
Notes (inhalation LC_{50})	Based on available data the classification criteria are not met.
ATE inhalation (gases ppm)	520,400.0

Skin corrosion/irritation

Animal data	Based on available data the classification criteria are not met.
Human skin model test	Not irritating. Contact with liquid form may cause frostbite.

Serious eye damage/irritation

Serious eye damage/irritation	No information available.

Respiratory sensitisation

Respiratory sensitisation	No information available.

Skin sensitisation

Skin sensitisation	No information available.

Germ cell mutagenicity

Go System Butane Gas Cylinder

Genotoxicity - in vitro	Chromosome aberration: Negative. REACH dossier information. Based on available data the classification criteria are not met.
Genotoxicity - in vivo	Chromosome aberration: Negative. REACH dossier information. Based on available data the classification criteria are not met.

Carcinogenicity

Carcinogenicity	NOAEL 10000 ppm, Inhalation, Mouse REACH dossier information. Based on available data the classification criteria are not met.
IARC carcinogenicity	None of the ingredients are listed or exempt.

Reproductive toxicity

Reproductive toxicity - fertility	Fertility - NOAEC 9000 ppm, Inhalation, Rat F1 REACH dossier information. Based on available data the classification criteria are not met.
Reproductive toxicity - development	Developmental toxicity: - NOAEC: 10426 ppm, Inhalation, Rat REACH dossier information. Based on available data the classification criteria are not met.

Specific target organ toxicity - single exposure

STOT - single exposure	Not classified as a specific target organ toxicant after a single exposure.

Specific target organ toxicity - repeated exposure

STOT - repeated exposure	NOAEC 10000 ppmV/4hr/day, Inhalation, Rat REACH dossier information. Not classified as a specific target organ toxicant after repeated exposure.

Aspiration hazard

Aspiration hazard	Not relevant. Gas.
General information	The severity of the symptoms described will vary dependent on the concentration and the length of exposure.
Inhalation	No specific symptoms known. Overexposure may cause the following adverse effects: Drowsiness, dizziness, disorientation, vertigo.
Ingestion	Due to the physical nature of this product, it is unlikely that ingestion will occur.
Skin contact	No specific symptoms known. In the event of an incident leading to contact with the liquid contents: Contact with liquid form may cause frostbite.
Eye contact	No specific symptoms known. In the event of an incident leading to contact with the liquid contents: Contact with liquid form may cause frostbite.
Route of entry	Inhalation Skin and/or eye contact
Target organs	No specific target organs known.

SECTION 12: Ecological Information

Ecotoxicity	Not regarded as dangerous for the environment. However, large or frequent spills may have hazardous effects on the environment.

12.1. Toxicity

Toxicity	Aquatic toxicity is unlikely to occur. Based on available data the classification criteria are not met.
Acute toxicity - fish	LC_{50}, 96 hours: 147.54 mg/l, Freshwater fish Estimated value.

Go System Butane Gas Cylinder

Acute toxicity - aquatic invertebrates	EC_{50}, 48 hours: 16.33 mg/l, Daphnia magna Estimated value.
Acute toxicity - aquatic plants	EC_{50}, 96 hours: 11.89 mg/l, Freshwater algae Estimated value.

12.2. Persistence and degradability

Persistence and degradability The product is biodegradable.

Biodegradation	Water - Degradation 100%: 385.5 hours

12.3. Bioaccumulative potential

Bioaccumulative potential	No data available on bioaccumulation.
Partition coefficient	Not relevant.

12.4. Mobility in soil

Mobility	The product contains volatile organic compounds (VOCs) which will evaporate easily from all surfaces.

12.5. Results of PBT and vPvB assessment

Results of PBT and vPvB assessment	This substance is not classified as PBT or vPvB according to current EU criteria.

12.6. Other adverse effects

Other adverse effects	None known.

SECTION 13: Disposal considerations

13.1. Waste treatment methods

General information	The generation of waste should be minimised or avoided wherever possible. This material and its container must be disposed of in a safe way. When handling waste, the safety precautions applying to handling of the product should be considered. Care should be taken when handling emptied containers that have not been thoroughly cleaned or rinsed out. Empty containers or liners may retain some product residues and hence be potentially hazardous. Do not puncture or incinerate, even when empty.
Disposal methods	Dispose of waste to licensed waste disposal site in accordance with the requirements of the local Waste Disposal Authority.

SECTION 14: Transport information

General	For limited quantity packaging/limited load information, consult the relevant modal documentation using the data shown in this section.

14.1. UN number

UN No. (ADR/RID)	1965
UN No. (IMDG)	1965
UN No. (ICAO)	1965
UN No. (ADN)	1 9 6 5

14.2. UN proper shipping name

Proper shipping name (ADR/RID)	Hydrocarbon gas mixtures, liquefied, n.o.s

Proper shipping name (IMDG)	Hydrocarbon gas mixtures, liquefied, n.o.s
Proper shipping name (ICAO)	Hydrocarbon gas mixtures, liquefied, n.o.s
Proper shipping name (ADN)	Hydrocarbon gas mixtures, liquefied, n.o.s

14.3. Transport hazard class(es)

ADR/RID class	2.1
ADR/RID classification code	2F
ADR/RID label	2.1
IMDG class	2.1
ICAO class/division	2.1
ADN class	2.1

Transport labels

14.4. Packing group

ADR/RID packing group	Not relevant.
IMDG packing group	Not relevant.
ADN packing group	Not relevant.
ICAO packing group	Not relevant.

14.5. Environmental hazards

Environmentally hazardous substance/marine pollutant

No.

14.6. Special precautions for user

Always transport in closed containers that are upright and secure. Ensure that persons transporting the product know what to do in the event of an accident or spillage.

EmS	F-D, S-U
ADR transport category	2
Tunnel restriction code	(B/D)

14.7. Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code

Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code	Not relevant.

SECTION 15: Regulatory information

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

Go System Butane Gas Cylinder

National regulations	Health and Safety at Work etc. Act 1974 (as amended). The Chemicals (Hazard Information and Packaging for Supply) Regulations 2009 (SI 2009 No. 716). The Carriage of Dangerous Goods and Use of Transportable Pressure Equipment Regulations 2009 (SI 2009 No. 1348) (as amended) ["CDG 2009"]. EH40/2005 Workplace exposure limits.
EU legislation	Regulation (EC) No 1907/2006 of the European Parliament and of the Council of 18 December 2006 concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH) (as amended). Commission Regulation (EU) No 453/2010 of 20 May 2010. Regulation (EC) No 1272/2008 of the European Parliament and of the Council of 16 December 2008 on classification, labelling and packaging of substances and mixtures (as amended). Dangerous Preparations Directive 1999/45/EC. Dangerous Substances Directive 67/548/EEC.

15.2. Chemical safety assessment

No chemical safety assessment has been carried out.

SECTION 16: Other information

Abbreviations and acronyms used in the safety data sheet	LC50 - Median Lethal Concentration LD50 - Median Lethal Dose NOAEC - No Observed Adverse Effect Concentration EC50 - Half maximal Effective Concentration PBT - Persistent, Bioaccumulative and Toxic vPvB - Very Persistent, Very Bioaccumulative
General information	Product is labelled as per regulation (EC) 1272/2008 Section 1.3.2, regarding LPG products.
Classification procedures according to Regulation (EC) 1272/2008	Flam. Gas 1 - H220: Press. Gas, Liquefied - H280: : Expert judgement.
Training advice	Read and follow manufacturer's recommendations.
Revision comments	Classification according to EC 1272/2008 (CLP).
Revision date	
Revision	1
Supersedes date	
SDS number	
Risk phrases in full	R12 Extremely flammable.
Hazard statements in full	H220 Extremely flammable gas. H280 Contains gas under pressure; may explode if heated.

This information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process. Such information is, to the best of the company's knowledge and belief, accurate and reliable as of the date indicated. However, no warranty, guarantee or representation is made to its accuracy, reliability or completeness. It is the user's responsibility to satisfy himself as to the suitability of such information for his own particular use.