



# Clemas & Co Ltd

Industrial Cleaning Equipment  
Sales - Hire - Service

## GUMPAK CHEWING GUM REMOVAL OPERATOR MANUAL



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## Operators Instructions ECOGUM PRX1:

DO NOT OPERATE THE ECOGUM PRX1 WITHOUT READING AND UNDERSTANDING THE OPERATING INSTRUCTIONS. IF THE ECOGUM PRX1 IS OPERATED INCORRECTLY IT CAN POSE DANGER TO THE OPERATOR AND OTHERS AND WILL INVALIDATE THE MANUFACTURERS WARRANTY. BEFORE USE, READ AND UNDERSTAND THE FOLLOWING:

1. A risk assessment for the works to be undertaken.
2. ECOGUM MSDS Chemical Data Sheet.
3. Risk Assessment for ECOGUM Chemical use.
4. ECOGUM LPG data sheet.

### IMPORTANT NOTICE:

Before inserting the LPG Gas and gum removal chemical correctly fit the rucksack to the operator by adjusting the straps to fit. The rucksack has been designed to be kept upright at all times when the LPG and gum removal chemical are inserted. This is important to the operation of the Ecogum PXR1 Workman.

## Cautions when using the ECOGUM PRX1:

- ✔ Keep the unit upright at all times when operating or when chemical or gas is inserted.
- ✔ The rechargeable battery has been designed to be fully charged BEFORE each use.
- ✔ Only use the ECOGUM approved solution and ECOGUM LPG for the safe use of the ECOGUM PRX1. Using other consumable items in the ECOGUM PRX1 invalidates the warranty and will lead to damage of the internal parts of the ECOGUM PRX1.
- ✔ Make sure the operator has read and understood these instructions before attempting to use the ECOGUM PRX1 and is fully trained in its operation.

## Consumable Items:

ECOGUM LPG gas consumption will vary slightly according to atmospheric pressures. The service pack contains 2 x ECOGUM LPG gas bottles, which will last approximately 8 hours.

ECOGUM chemical (2 Litre) will last for approximately 2 hours of continual use. 4 x ECOGUM chemical bottles will last for approximately 8 continual hour's operation.

Brass brushes will wear according to the surface being cleaned. Each brass brush will last for approximately 1 to 1.5 hours. 6 x brass brushes will last for 8 hours continual operation of the ecogum PRX1.

Choose a brass brush for solid urban surfaces such as concrete, natural stone, tarmacadam, asphalt and other common urban surfaces. Choose a nylon brush for surfaces such as wooden flooring, entrance matting and heavy-duty carpet.

### IMPORTANT NOTICE:

Always complete a test patch on the above surfaces to make sure no damage occurs to the flooring or surface.

## Before operating the ECOGUM PRX1:

- ✓ Remove the cap from the ECOGUM chemical bottle.
- ✓ Insert the ECOGUM solution bottle into the square hole in the unit.
- ✓ Screw the black cap onto the bottle (which is attached to the unit by a tube) and make sure the tube is pushed as far down as it will go into the bottle.
- ✓ Screw the 2 ECOGUM LPG gas bottles onto the gas valve manifold ensuring that it is tightly connected and place these into the unit.
- ✓ Turn the 2 gas valves on.
- ✓ Replace the lid securely by the 2 clips either side to ensure pipes/cables are not snagged.
- ✓ Screw a brass or nylon gum removal brush onto the end of the nozzle of the Lance.
- ✓ Ensure that the battery has been fully charged before each use.

## Turning on the ECOGUM PRX1:

*Put the ECOGUM PRX1 on and adjust to fit the operative.*

- ✓ Make sure the speed controller is at zero (0).
- ✓ Turn the pump/gas/fan on by pushing the red switch on the right hand side of the rucksack and then after 5 seconds push the red starter button until you hear the unit ignite.
- ✓ The unit will take about 3 minutes to heat up.
- ✓ Once the unit is up to temperature turn the speed controller to number one (1). ( $\frac{1}{4}$  past 12)
- ✓ A small adjustment may be required on the speed controller depending on what type of surface you are removing the gum and how much fluid is required.

## How to Remove Gum:

Place the brush on the piece of flattened gum and wait 5-10 seconds.

Agitate the flattened gum with the brush until you see it disintegrate by using circular motions – do not scrub or apply pressure. The weight of the lance with agitation is all that is required.

Remove the Ecogum PXR1 lance from the gum and use a broom to sweep across the area to ensure the gum has been destroyed or if further cleaning is needed.

As gum deposits are all different there will be varying times taken to destroy each piece.

## Turning on the ECOGUM PRX1:

Turn the red switch of which will isolate the machine.

Remove the Gas and Chemical bottles from the Ecogum system.

Turn the switch on to drain the unit until there is no fluid coming from the nozzle at the end of the lance.

Turn the red switch off so the pump is no longer working.

# Safety Data Sheet

according to 1907/2006/EC, Article 31  
 GUM REMOVER SOLUTION

Revision 1  
 Revision date 2011-10-12

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

1.1. Product identifier	
Product name	GUM REMOVER SOLUTION
1.3. Details of the supplier of the safety data sheet	
Company	Merlin Chemicals Ltd
Address	Unit 5, Passfield Mill Business Park, Liphook, Hants. GU30 7RR. United Kingdom
Web	www.merlinchemicals.co.uk
Telephone	+44 (0)1428 751122
Fax	+44 (0)1428 751133
Email	technical@merlinchemicals.co.uk

## SECTION 2: Hazards identification

2.1. Classification of the substance or mixture	
Main hazards	No Significant Hazard

## SECTION 3: Composition/information on ingredients

Description	
	No Significant Hazard.

## SECTION 4: First aid measures

4.1. Description of first aid measures	
Inhalation	If affected move to fresh air. Keep warm and at rest.
Eye contact	Rinse immediately with plenty of water for 15 minutes holding the eyelids open. Seek medical attention if irritation or symptoms persist.
Skin contact	Wash off immediately with plenty of soap and water. Seek medical attention if irritation or symptoms persist.
Ingestion	If swallowed, seek medical advice immediately and show this container or label. DO NOT INDUCE VOMITING.

## SECTION 5: Firefighting measures

5.1. Extinguishing media	
	Use extinguishing media appropriate to the surrounding fire conditions.
5.2. Special hazards arising from the substance or mixture	
	Burning produces irritating, toxic and obnoxious fumes.
5.3. Advice for firefighters	
	Wear: Self-contained breathing apparatus.

## SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures	
	Ensure adequate ventilation of the working area. Wear suitable protective equipment.

# Safety Data Sheet

according to 1907/2006/EC, Article 31

## GUM REMOVER SOLUTION

### 6.2. Environmental precautions

Prevent further spillage if safe. Advise local authorities if large spills cannot be contained.

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

Contain with sand or granules. Sweep up. Transfer to suitable, labelled containers for disposal.

## SECTION 7: Handling and storage

### 7.1. Precautions for safe handling

Ensure adequate ventilation of the working area.

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

Keep in a cool, dry, well ventilated area. Keep containers tightly closed. Store in correctly labelled containers.

## SECTION 8: Exposure controls/personal protection

### 8.2. Exposure controls



#### 8.2.1. Appropriate engineering controls

Ensure adequate ventilation of the working area.

#### 8.2.2. Individual protection measures

Adopt best Manual Handling considerations when handling, carrying and dispensing.

#### Eye / face protection

Safety glasses.

#### Skin protection - Handprotection

Rubber gloves.

#### Respiratory protection

In case of insufficient ventilation, wear suitable respiratory equipment.

#### 8.2.3. Environmental exposure controls

Users should be aware of environmental considerations and their duties under the Environmental Protection Act.

## SECTION 9: Physical and chemical properties

### 9.1. Information on basic physical and chemical properties

State	Liquid
Colour	Colourless
Odour	Characteristic
pH	3 - 4
Relative density	1 - 1.02
Solubility	Soluble in water

## SECTION 10: Stability and reactivity

### 10.2. Chemical stability

Stable under normal conditions.

## SECTION 11: Toxicological information

### 11.1. Information on toxicological effects

#### Acute toxicity

The material is unlikely to cause any adverse effects in normal conditions of handling and use.

## SECTION 12: Ecological information

### 12.1. Toxicity

No data is available on this product.

## SECTION 13: Disposal considerations

# Safety Data Sheet

according to 1907/2006/EC, Article 31

GUM REMOVER SOLUTION

## General information

	Dispose of in compliance with all local and national regulations.
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## Disposal of packaging

	Containers must be recycled in compliance with national legislation and environmental regulations.
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## SECTION 14: Transport information

### ADR/RID

	The product is not classified as dangerous for carriage.
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### IMDG

	The product is not classified as dangerous for carriage.
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### IATA

	The product is not classified as dangerous for carriage.
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## SECTION 15: Regulatory information

### Labelling

Risk phrases	No Significant Hazard.
Safety phrases	S1/2 - Keep locked up and out of the reach of children. S13 - Keep away from food, drink and animal feedingstuffs. S25 - Avoid contact with eyes. S37/39 - Wear suitable gloves and eye/face protection. S46 - If swallowed, seek medical advice immediately and show this container or label.

## SECTION 16: Other information

### Other information

Revision	This document differs from the previous version in the following areas: 3 - Description.
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### Further information

	The information supplied in this Safety Data Sheet is designed only as guidance for the safe use, storage and handling of the product. This information is correct to the best of our knowledge and belief at the date of publication however no guarantee is made to its accuracy. 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 other process. This version replaces all previous versions.
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## SAFETY DATA SHEET

DATE REVISED: 25.08.09  
 Supersedes SDS dated: N/A  
 Date issued: 01.12.04



THIS DATA SHEET HAS BEEN PREPARED IN ACCORDANCE WITH CRONER'S HAZARD INFORMATION AND PACKAGING GUIDE

## 1. Identification of the Substance/Preparation and Company

Substance or preparation trade name:  
 Butane-Propane Mix Gas Cartridge  
 (Hydrocarbon Gas Mixture, AO, NOS)  
 Unique reference number(s):  
 2175 & 2350

Company name, address and normal telephone number:  
 Go Gas Ltd., Unit 40, Meadow Industrial Estate,  
 Water Street, Stockport, Cheshire SK1 2BY, England  
 T: +44 (0)161 477 3330 F: +44 (0)161 477 1130  
 E: info@gogas.co.uk  
 Emergency telephone no:  
 +44 (0)161 477 3330

## 2. Composition/Information on Ingredients

Preparation: BUTANE (LIQUEFIED PETROLEUM GAS)

Substance	CAS number:	EC Index number:	EEC number:	Einics number:
Butane	106-97-8	601-004-00-0	203-448-7	270-704-2
Propane	74-98-6	601-003-00-5	200-827-9	200-827-9

Hydrocarbons C3-4 Rich, Petroleum Distillates, Petroleum Gas Liquefied. Other extremely flammable components.

## 3. Hazards Identifications

The most important hazards are:

- E XTREMELY FLAMMABLE GAS.
- E XPOSURE TO HIGH CONCENTRATIONS OF VAPOUR CAN LEAD TO NAUSEA, HEADACHE, DIZZINESS AND IN EXTREME CASES, LOSS OF CONSCIOUSNESS, AND IN OXYGEN DEFICIENT ENVIRONMENTS, DEATH.
- S KIN CONTACT WITH LIQUEFIED GAS CAN CAUSE COLD BURNS.



## 4. First Aid Measures

Immediate medical attention required: Yes

Professional assistance from physician required: Yes

Summary of first aid is as follows:

**Inhalation:** Remove subject to fresh air as soon as possible using self contained breathing apparatus if appropriate to protect rescuer. If subject breathing, keep warm and at rest, preferably lying down. Do not leave the subject. Remove contaminated clothing if possible. If subject has stopped breathing, give appropriate artificial respiration (preferably with a brook airway). When breathing starts, place subject in recovery position. Do not leave the victim. Get medical assistance as soon as possible, remove to hospital for further treatment. Give oxygen if available (short applications, not continuous therapy).  
**Skin contact:** Immediately drench skin with cold water, irrigating the affected area for 10 minutes. As soon as possible get medical aid and/or remove subject to hospital for specialised treatment.  
**Eye contact:** Immediately drench eyes with cold water, irrigating the affected area for 10 minutes. As soon as possible get medical aid and/or remove subject to hospital for specialised treatment.  
**Ingestion:** Remove subject to fresh air as soon as possible, and follow the guidelines for 'Inhalation' above.

## 5. Fire-Fighting Measures

Suitable extinguishing media:

Dry powder - Use water fog/spray to contain the fire.

Unsuitable extinguishing media:

Standard water jet fire hoses can spread the fire and may cause dangerous explosions.

Special exposure hazards in fire:

Danger of explosion in enclosed space - keep nearby gas containers cool with water spray.

Required special protective equipment for fire fighters:

Fires involving gases usually give off TOXIC FUMES and VAPOURS. Approach fire or gas leaks with caution from upwind and with respiratory protection if available.

## 6. Accidental Release Measures

**Personal precautions:** If there is a leakage from a small amount of gas, evacuate people from the immediate danger area, and the area in the path of the gas cloud, if possible. Switch off all sources of ignition. No smoking. Isolate leaking container(s), if possible. Stop leak at source. If leakage cannot be stopped, remove container(s) to an isolated area, clear of buildings, people and sources of ignition.

**Environmental precautions:** If possible, allow gas to be released slowly into the atmosphere to produce a harmless dilution. Disperse gas using a hose reel fitted with a water spray or fog nozzle, or by air agitation.

**Methods for cleaning:** Attempts should be made to prevent gas vapours entering drains or gullies. Vapours will disperse to atmosphere if sufficient air flow is available.

Where appropriate refer to information under headings "8. Exposure controls" and "13. Disposal considerations"

## 7. Handling and Storage

**Handling:** GoSystem gas cartridges are supplied from the factory in Fibreboard Combination Packages of 12 gas cartridges per package. Packages should be handled with care and kept upright when transferring the packages.

**Storage:** The storage of LPG is subject to legislative controls. The primary piece of legislation affecting the storage of LPG is the Highly Flammable liquids and Liquefied Petroleum Gases Regulations 1972. LPG must be stored in purpose built Containment systems.

LPGA Code of practice 7 should be consulted in order to comply with the legislation (obtainable from HMSO book shops and the L.P. Gas Association).

## 8. Exposure Controls

Take measures to prevent:

Physical contact with liquid gas. Exposure to gas vapour in enclosed spaces.

Exposure Control Limits, and source:

Relevant only to unburned gases. The following exposure limits are taken from the Health & Safety Executive Guidance Note EH40/2005 Workplace exposure limits.

Workplace Exposure Limits:

Butane-Propane Gas Mixture (A.O.):  
 1450 mg/cubic metre (600ppm) 8-hour TWA value.  
 1810 mg/cubic metre (700ppm) 15-min TWA value.

Liquefied Petroleum Gas:  
 1750 mg/cubic metre (1000ppm) 8-hour TWA value.  
 2180 mg/cubic metre (1200ppm) 15-min TWA value.

Respiratory protection:

Should be used if there is a risk of high vapour concentration.

Hand protection:

Use rubber gloves if in contact with liquid.

Skin protection:

Wear protective overalls with long sleeves to protect exposed skin.

Eye protection:

Use goggles or face shield when handling in liquid form. When used as a fuel source, the above controls will not be necessary. However, products fuelled by LPG should always be used in well ventilated areas, preferably outdoors.

## 9. Physical and Chemical Properties

Appearance:

Colourless  
 Distinctive and unpleasant (stretched)

Odour:

Neutral

pH:  
 Boiling point/boiling point range:

-42 Deg.C.

Flashpoint (°C) closed cup:

Less than -40 Deg.C.

Flammability (gas/solid):

Not applicable

Autoflammability:

410/550 Deg.C.

Explosive properties:

Not applicable

Oxidising properties:

Not applicable

Vapour pressure:

4.1 bar @ 20 Deg.C.

Relative density:

@ 15 Deg.C: 0.55 to 0.56

Solubility (water and fat):

Immiscible

## 10. Stability and Reactivity

Conditions to avoid:

Sources of ignition (store below 50 Deg.C).

Materials to avoid:

Strong oxidising agents, e.g. chlorates which may be used in agriculture.

Hazardous decomposition:

The substances arising from the thermal decomposition of these products will largely depend on the conditions bringing about decomposition. The following substances may be expected from normal combustion:

Carbon Dioxide:

Polycyclic Aromatic Hydrocarbons

Carbon Monoxide:

Unburned Hydrocarbons

Water:

Unidentified Organic and Inorganic Compounds

Particulate Matter:

Nitrogen Oxides

## 11. Toxicological Information

Acute Health Hazards and Advice.

Liquefied Butane Gases under normal conditions of storage and use are not likely to present a health hazard. The gas is heavier than air and in the event of a spillage will collect in depressions, pits, drains, confined spaces, etc., where it can present a health hazard.

**Inhalation**

Exposure to higher concentrations of Liquefied Butane Gases can lead to drowsiness, unconsciousness, and subsequent asphyxiation. Very high concentrations can lead to abnormal heart rhythms and possibly death. Precautions: Inhalation of vapours should be avoided. Where, exceptionally, higher concentrations of vapour are likely to be present, e.g. in the event of a spillage in a badly ventilated area, persons should not be allowed to enter the area, even in an emergency, until the atmosphere has been checked and passed as safe for entry by a competent person.

**First Aid:** Remove the affected person to fresh air. If breathing has stopped administer artificial respiration. Give external cardiac massage if necessary. If the person is breathing, but unconscious, place in the recovery position. Obtain medical assistance immediately.

**Skin**

Skin contact with Liquefied Butane Gases, occurring as a result of the rapid evaporation of the liquid gas, may result in cold burns.

Precautions: Avoid contact with the skin by the use of suitable protective clothing.

**First Aid:** Burns should be flushed with water to normalise temperature. Cover the burns with sterile dressings. Do not apply ointments or powders. Obtain medical attention.

**Eyes**

Eye contact with rapidly evaporating Liquefied Butane Gases may cause cold burns.

Precautions: If there is a risk of eye contact when handling the liquid, suitable eye protection should be used.

**First Aid:** Burns should be flushed with water to normalise temperature. Cover the eye with a sterile dressing and obtain medical attention immediately.

**Ingestion**

Whilst this is not a normal hazard associated with Liquefied Butane Gases, abuse by inverting gas containers can result in the liquid being ingested.

In these circumstances the hazards are the same as for inhalation.

Precautions: Liquefied gas should never be ingested.

**First Aid:** Remove the affected person to fresh air. If breathing has stopped, administer artificial respiration. Give external cardiac massage if necessary. If the person is breathing, but unconscious, place in the recovery position. Obtain medical assistance immediately.

Notes for Doctors: No special information.

## 12. Ecological Information

Possible effects:

No known effects on the environment.

Behaviour:

No known ecological damage will be caused by this product.

Environmental fate:

When released to Air, soil and water, the majority of the product will rapidly evaporate.

## 13. Disposal Considerations

Likely residues/waste product (if any):

No known residues. Waste product: Metal Container.

Safe handling of any residues/waste product:

Any disposal route should comply with local by-laws and the requirements of the Environment Protection Act, 1990. Liquefied Butane Gases are subject to the Control of Pollution (Special Waste) Regulations 1980.

For disposal of surplus quantities of GoSystem gas containers, contact your local supplier, or representative

## 14. Transport Information

Classification for carriage:

Flammable gas

ARD/RID Proper shipping name:

Mixture of gases listed under 11°/5°(b) Butane (Liquefied Petroleum Gas).

Preparation identification number:

1965 (1075) Mixture AO, NOS, ARD

Land transport ADR / RID

ARD / RID Class:

2

UN Number:

2037

Hazard Class:

5F

Packing group:

-Combination packages (Fibreboard) - Limited Quantities

Labels:

Name and description:

RECEPTACLES SMALL CONTAINING GAS (GAS CARTRIDGE)

Marine Transport IMDG

IMDG Class:

2

UN Number:

2037

Packing group:

-Combination packages (Fibreboard) - Limited Quantities

Labels:

Name and description:

RECEPTACLES SMALL CONTAINING GAS (GAS CARTRIDGE)

Air transport ICAO / IATA

ARD / RID Class:

2.1

UN Number:

2037

Packing group:

-Combination packages (Fibreboard) - Limited Quantities

Labels:

Name and description:

RECEPTACLES SMALL CONTAINING GAS (GAS CARTRIDGE)

## 15. Regulatory Information

Supply label information: This information has been classified according to the requirements of the Dangerous Substances Directive 67/548/EEC and the Preparations Directive 88/379/EEC.

Dangerous for supply:

Symbols: F+ Flame

Category of Danger: Extremely Flammable

Risk Phrases: R12 Extremely Flammable

Safety Phrases: S2 Keep out of reach of children

S9 Keep container in a well ventilated place

S16 Keep away from sources of ignition



Applicable EU Provisions and associated UK legislation:

Dangerous substances Directive 67/548/EEC

The Preparations Directive 88/379/EEC.

The Chemicals (Hazard Information & Packaging for supply) Regulations 2002 (SI No.1689) (CHIP3).

The Control of Substances Hazardous to Health (Amendment) Regulations 2004 (COSHH 2004).

## 16. Other Information

Training advice:

The most important considerations are handling and storage. Code of Practice 7, referenced below gives all the necessary information required.

Further information:

Code of Practice 7 Storage of Full and Empty LPG Cylinders and Cartridges.

Sources of key data used to compile safety data sheets:

Croner's Dangerous Substances

Shell Gas Technical and Safety Data Sheet. Shell UK Ltd.

IMCO Guide

Approved Supply List

Other:

ARD/RID Regulations

The data contained in this Safety Data Sheet has been supplied as a requirement by the Chemicals (Hazard Identification and Packaging for Supply) Regulations 2002, for the purpose of protecting the health and safety of industrial and commercial users who are deemed capable of understanding and acting on the information provided.

Please ensure that it is passed to the appropriate person(s) in your company, who are capable of acting on the information.