

# LNG – Natural Gas, Compressed



## Safety Data Sheet



according to Regulation (EC) No. 1907/2006 (REACH) with its amendment Regulation (EU) 2015/830  
Issue date: 04/2020 Version: 2.0

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

#### 1.1. Product identifier

Product form:	Substance
Trade name:	LNG – NATURAL GAS, REFRIGERATED LIQUID
Chemical name:	methane
EC-No.:	232-343-9
CAS No.:	8006-14-2
Product group:	Fuel

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

##### 1.2.1. Relevant identified uses

Industrial/Professional use spec:	Industrial For professional use only
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Use of the substance/mixture:	Flogas LNG is a product intended to be vaporised before use, these uses included: fuel for commercial equipment which has been specifically designed to run on Natural Gas; internal combustion engine fuel (via on board LNG storage, when used as a propulsion fuel).
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##### 1.2.2. Uses advised against

No additional information available

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

##### Supplier

Flogas Britain Ltd.  
Rayns Way, Watermead Business Park, P.O. Box Syston, Leicestershire, LE7 1PF - United Kingdom  
T: 0116 264 9000  
enquiries@flogas.co.uk

#### 1.4. Emergency telephone number

Emergency number:	03457 200 100
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### SECTION 2: Hazards identification

#### 2.1. Classification of the substance or mixture

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

Flammable gases, Category 1A	H220
Gases under pressure : Compressed gas	H281
Full text of H statements:	see section 16

## Adverse physicochemical, human health and environmental effects

No additional information available

### 2.2. Label elements

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

Hazard pictograms (CLP):



GHS02

Signal word (CLP):

Danger

Hazard statements (CLP):

H220 - Extremely flammable gas.  
H281 - Contains refrigerated gas; may cause cryogenic burns or injury.

Precautionary statements (CLP):

P210 - Keep away from heat, hot surfaces, open flames, sparks. No smoking.  
P282 - Wear cold insulating gloves and either face shield or eye protection.  
P336+P315 - Thaw frosted parts with lukewarm water. Do not rub affected area.  
Get immediate medical advice/attention.  
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

No additional information available

## SECTION 3: Composition/information on ingredients

### 3.1. Substances

Name: LNG – NATURAL GAS, REFRIGERATED LIQUID

CAS-No. : 8006-14-2

EC-No. : 232-343-9

Name	Product identifier	%
Natural gas	(CAS No.) 8006 14 2 (EC No.) 232 343 9 (REACH no) Not applicable	100

### 3.2. Mixtures

Not applicable

## SECTION 4: First aid measures

### 4.1. Description of first aid measures

First aid measures general:

Never give anything by mouth to an unconscious person. If you feel unwell, seek medical advice (show the label where possible).

First aid measures after inhalation:

Allow affected person to breathe fresh air. Allow the victim to rest. In high concentrations may cause asphyxiation. Symptoms may include loss of mobility/consciousness. Victim may not be aware of asphyxiation. Inhalation of high concentration of vapours may cause respiratory irritation, dizziness, and headache. If respiration or pulse has stopped, have a trained person administer Basic Life Support (Cardio Pulmonary Resuscitation and/or Automatic External Defibrillator) and CALL FOR EMERGENCY SERVICES IMMEDIATELY. If necessary, give external cardiac massage and obtain medical assistance.

First aid measures after skin contact: Remove affected clothing and wash all exposed skin area with mild soap and water, followed by warm water rinse. Thaw frosted parts with lukewarm water. Do not rub affected area. Get immediate medical advice/attention.

First aid measures after eye contact: Rinse immediately with plenty of water. Obtain medical attention if pain, blinking or redness persists.

First aid measures after ingestion: Ingestion is not considered a potential route of exposure.

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

Symptoms/effects: Contains refrigerated gas; may cause cryogenic burns or injury.

Symptoms/effects after inhalation: Symptoms of overexposure are dizziness, headache, tiredness, nausea, unconsciousness, breathing arrest.

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

Treat symptomatically.

### SECTION 5: Firefighting measures

#### 5.1. Extinguishing media

Suitable extinguishing media: Foam. Dry powder. Carbon dioxide. Sand. Cool closed containers exposed to fire with water spray. Leaking gas fire: Do not extinguish, unless leak can be stopped safely. Move containers from fire area if it can be done without personal risk. Use caution when applying carbon dioxide in confined spaces. Carbon dioxide can displace oxygen.

Unsuitable extinguishing media: Do not use a heavy water stream.

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

Fire hazard: Heat may build pressure, rupturing closed containers, spreading fire and increasing risk of burns and injuries. Leaks/ruptures in high pressure system can create a fire hazard when in the vicinity of ignition sources (eg. open flame, pilot lights, sparks, or electric arcs).

Explosion hazard: Contains gas under pressure; may explode if heated.

Reactivity in case of fire: On heating: release of highly flammable gases/vapours e.g.: (methane).

#### 5.3. Advice for firefighters

Precautionary measures fire: Appropriate self contained breathing apparatus may be required. Carbon dioxide and inert gas can displace oxygen. Components of natural gas are lighter than air and should dissipate rapidly before having any effect in open areas. This material is combustible and can be ignited by heat, sparks, flames, or other sources of ignition (e.g. static electricity, pilot lights, or mechanical/electrical equipment).

Firefighting instructions: Use water spray or fog for cooling exposed containers. Exercise caution when fighting any chemical fire. Eliminate all ignition sources if safe to do so.

Protective equipment for firefighters: Do not enter fire area without proper protective equipment, including respiratory protection.

Other information: Cool adjacent tanks / containers / drums with water jet. Exposure to fire may cause containers to rupture/explode.

## SECTION 6: Accidental release measures

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

General measures: Evacuate personnel to a safe area.

#### 6.1.1. For non-emergency personnel

Protective equipment: Ensure adequate ventilation. In case of fire: Wear self contained breathing apparatus.

Emergency procedures: Evacuate unnecessary personnel. Avoid ignition sources.

#### 6.1.2. For emergency responders

Protective equipment: Equip clean-up crew with proper protection.

Emergency procedures: Ventilate area.

### 6.2. Environmental precautions

Prevent entry to sewers and public waters. Notify authorities if liquid enters sewers or public waters.

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

Methods for cleaning up: Store away from other materials.

### 6.4. Reference to other sections

See Heading 8. Exposure controls and personal protection.

## SECTION 7: Handling and storage

### 7.1. Precautions for safe handling

Additional hazards when processed: Handle empty containers with care because residual vapours are flammable. Flammable gas.

Precautions for safe handling: Avoid any leak and work in fully closed specially engineered systems. Avoid ignition sources. Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. Contains gas under pressure; may explode if heated. Only experienced and properly instructed persons should handle gases under pressure. Do not handle until all safety precautions have been read and understood. Damaged cylinders should be handled by specialists only. Empty containers should be taken for recycling, recovery or waste in accordance with local regulation. Pressurised container. Protect from sunlight and do not expose to temperatures exceeding 50°C. Wash hands and other exposed areas with mild soap and water before eating, drinking or smoking and when leaving work. Provide good ventilation in process area to prevent formation of vapour. Wear cold insulating gloves, eye protection.

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

Technical measures: Keep container tightly closed. Store in tightly closed, leak proof containers. Proper grounding procedures to avoid static electricity should be followed.

Storage conditions: Keep only in the original container in a cool, well ventilated place away from : Keep container closed when not in use. Keep in fireproof place.

Incompatible products: Strong bases. Strong acids.

Incompatible materials: Sources of ignition. Direct sunlight. Heat sources.

Storage area: Store in a well ventilated place.

### 7.3. Specific end use(s)

Refer to section 1.

## SECTION 8: Exposure controls/personal protection

### 8.1. Control parameters

No additional information available.

### 8.2. Exposure controls

#### Personal protective equipment:

Avoid all unnecessary exposure. In case of repeated or prolonged contact (industrial environment), wear personal protective equipments. Gloves. Protective clothing. Protective goggles.

#### Hand protection:

Avoid contact with skin. Wear suitable gloves tested to EN 511. Long cuff gloves (Gauntlet type extending beyond the wrist)

#### Eye protection:

Avoid contact with eyes. Wear approved safety goggles. Chemical goggles should be consistent with EN166 or equivalent.

#### Skin and body protection:

If repeated skin contact or contamination of clothing is likely (industrial environment), protective clothing should be worn. Chemical resistant protective apron / clothing (tested to EN 14605 or equivalent).

#### Respiratory protection:

If technical exhaust or ventilation measures are not possible or insufficient, respiratory protection must be worn. Protective respiration apparatus not using surrounding air (breathing apparatus) (DIN EN 133). Self contained breathing apparatus (SCBA ) or positive pressure airline with mask are to be used in oxygen deficient atmospheres.

#### Personal protective equipment symbol(s):



#### Other information:

Do not eat, drink or smoke during use.

## SECTION 9 : Physical and chemical properties

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

Physical state:	Gas
Appearance:	Colourless Refrigerated gas.
Colour:	Colourless
Odour:	Odourless
Odour threshold:	Not determined for this product
pH:	Not determined for this product
Relative evaporation rate (butylacetate=1):	Not determined for this product
Melting point:	-182 °C
Freezing point:	Not determined for this product
Boiling point:	- 161 °C
Flash point:	Not determined for this product
Auto ignition temperature:	595 °C
Decomposition temperature:	Not determined for this product
Flammability (solid, gas):	4.4% to 17% (by volume) in air Extremely flammable gas
Vapour pressure:	Not determined for this product

Relative vapour density at 20 °C:	No data available
Relative density:	0.42 g/cm <sup>3</sup> (Water = 1.0)
Relative gas density:	0.6 (Air = 1.0)
Solubility:	Not determined for this product
Partition coefficient n-octanol/water (Log Pow):	Not determined for this product
Viscosity, kinematic:	Not determined for this product
Viscosity, dynamic:	Not determined for this product
Explosive properties:	No data available
Oxidising properties:	No data available
Explosive limits:	No data available

## 9.2. Other information

No additional information available

## SECTION 10: Stability and reactivity

### 10.1. Reactivity

No dangerous reactions known under normal conditions of use.

### 10.2. Chemical stability

Stable in use and storage conditions as recommended in item 7.

### 10.3. Possibility of hazardous reactions

No hazardous reactions if stored and handled as prescribed/indicated. May react violently with oxidants. Not established.

### 10.4. Conditions to avoid

Direct sunlight. Extremely high or low temperatures. Open flame. Overheating. Heat. Sparks.

### 10.5. Incompatible materials

Strong acids. Strong bases.

### 10.6. Hazardous decomposition products

Carbon monoxide. Carbon dioxide. fume. Carbon dioxide.

## SECTION 11: Toxicological information

### 11.1. Information on toxicological effects

Acute toxicity (oral): Not classified (Based on available data, the classification criteria are not met)

Acute toxicity (dermal): Not classified (Based on available data, the classification criteria are not met)

Acute toxicity (inhalation): Not classified (Based on available data, the classification criteria are not met)

Skin corrosion/irritation: Not classified  
pH: Not determined for this product

Additional information: Based on available data, the classification criteria are not met

Serious eye damage/irritation: Not classified  
pH: Not determined for this product

Additional information: Based on available data, the classification criteria are not met

Respiratory or skin sensitisation: Not classified

Additional information: Based on available data, the classification criteria are not met

Germ cell mutagenicity: Not classified

Additional information: Based on available data, the classification criteria are not met

Carcinogenicity:	Not classified
Additional information:	Based on available data, the classification criteria are not met
Reproductive toxicity:	Not classified
Additional information:	Based on available data, the classification criteria are not met
STOT-single exposure:	Not classified
Additional information:	Based on available data, the classification criteria are not met
STOT-repeated exposure:	Not classified
Additional information:	Based on available data, the classification criteria are not met
Aspiration hazard:	Not classified
Additional information:	Based on available data, the classification criteria are not met
Potential Adverse human health effects and symptoms:	Based on available data, the classification criteria are not met.

## SECTION 12: Ecological information

### 12.1. Toxicity

Hazardous to the aquatic environment, short term (acute): Not classified

Hazardous to the aquatic environment, long term (chronic): Not classified

### 12.2. Persistence and degradability

#### LNG – NATURAL GAS, REFRIGERATED LIQUID (8006-14-2)

Persistence and degradability Not established

#### Natural gas (8006-14-2)

Persistence and degradability Readily biodegradable in water.

### 12.3. Bioaccumulative potential

#### LNG – NATURAL GAS, REFRIGERATED LIQUID (8006-14-2)

Bioaccumulative potential Not established

#### Natural gas (8006-14-2)

Bioaccumulative potential No potential for bioaccumulation.

### 12.4. Mobility in soil

No additional information available

### 12.5. Results of PBT and vPvB assessment

#### Component

Natural gas (8006-14-2) This substance does not meet the PBT/vPvB criteria of REACH, annex XIII.

### 12.6. Other adverse effects

Additional information: Avoid release to the environment.





## SECTION 13: Disposal considerations

### 13.1. Waste treatment methods

Product/Packaging disposal recommendations:	Dispose in a safe manner in accordance with local/national regulations. Damaged cylinders should be handled by specialists only. Handle empty containers with care because residual vapours are flammable. All containers must be labelled to warn against exposure.
Additional information:	Handle empty containers with care because residual vapours are flammable.
Ecology – waste materials:	Empty containers should be taken for recycling, recovery or waste in accordance with local regulation. Avoid release to the environment.

## SECTION 14: Transport information

In accordance with ADR / RID / IMDG / IATA / ADN

ADR	IMDG	IATA	ADN	RID
<b>14.1. UN number</b>				
UN 1972	UN 1972	UN 1972	UN 1972	UN 1972
<b>14.2. UN proper shipping name</b>				
NATURAL GAS, REFRIGERATED LIQUID	NATURAL GAS, REFRIGERATED LIQUID	Natural gas, refrigerated liquid	NATURAL GAS, REFRIGERATED LIQUID	NATURAL GAS, REFRIGERATED LIQUID
<b>Transport document description</b>				
UN 1972 NATURAL GAS, REFRIGERATED LIQUID, 2.1, (B/D)	UN 1972 NATURAL GAS, REFRIGERATED LIQUID, 2.1	UN 1972 Natural gas, refrigerated liquid, 2.1	UN 1972 NATURAL GAS, REFRIGERATED LIQUID, 2.1	UN 1972 NATURAL GAS, REFRIGERATED LIQUID, 2.1
<b>14.3. Transport hazard class(es)</b>				
2.1	2.1	2.1	2.1	2.1
		Not applicable		
<b>14.4. Packing group</b>				
Not applicable	Not applicable	Not applicable	Not applicable	Not applicable
<b>14.5. Environmental hazards</b>				
Dangerous for the environment: No	Dangerous for the environment: No Marine pollutant: No	Dangerous for the environment: No	Dangerous for the environment: No	Dangerous for the environment: No
No supplementary information available				



## 14.6. Special precautions for user

### Overland transport

Classification code (ADR):	3F		
Special provisions (ADR):	392		
Limited quantities (ADR):	0		
Excepted quantities (ADR):	E0		
Packing instructions (ADR):	P203		
Mixed packing provisions (ADR):	MP9		
Portable tank and bulk container instructions (ADR):	T75		
Portable tank and bulk container special provisions (ADR):	TP5		
Tank code (ADR):	RxBN		
Tank special provisions (ADR):	TU18, TA4, TT9		
Vehicle for tank carriage:	FL		
Transport category (ADR):	2		
Special provisions for carriage Packages (ADR)	V5		
Special provisions for carriage Loading, unloading and handling (ADR)	CV9, CV11, CV36		
Special provisions for carriage - Operation (ADR):	S2, S17		
Hazard identification number (Kemler No.):	223		
Orange plates:	<table border="1"><tr><td>223</td></tr><tr><td>1972</td></tr></table>	223	1972
223			
1972			
Tunnel restriction code (ADR):	B/D		
EAC code:	2YE		

### Transport by sea

Limited quantities (IMDG):	0
Excepted quantities (IMDG):	E0
Packing instructions (IMDG):	P203
Tank instructions (IMDG):	T75
Tank special provisions (IMDG):	TP5
EmS No. (Fire):	F-D
EmS No. (Spillage):	S-U
Stowage category (IMDG):	D
Stowage and handling (IMDG):	SW2
Properties and observations (IMDG):	Liquefied, flammable gas. Explosive limits: 5% to 16%. Lighter than air (methane 0.55).

### Air transport

PCA Limited quantities (IATA):	Forbidden
PCA limited quantity max net quantity (IATA):	Forbidden
PCA packing instructions (IATA):	Forbidden
PCA max net quantity (IATA):	Forbidden
CAO packing instructions (IATA):	Forbidden
CAO max net quantity (IATA):	Forbidden
ERG code (IATA):	10L

## Inland waterway transport

Classification code (ADN):	3F
Special provisions (ADN):	392
Limited quantities (ADN):	0
Excepted quantities (ADN):	E0
Equipment required (ADN):	PP, EX, A
Ventilation (ADN):	VE01
Number of blue cones/lights (ADN):	1

## Rail transport

Classification code (RID):	3F
Special provisions (RID):	3922
Limited quantities (RID):	0
Excepted quantities (RID):	E0
Packing instructions (RID):	P203
Mixed packing provisions (RID):	MP9
Portable tank and bulk container instructions (RID):	T75
Portable tank and bulk container special provisions (RID):	TP5
Tank codes for RID tanks (RID):	RxBN
Special provisions for RID tanks (RID):	TU18, TU38, TE22, TA4, TT9, TM6
Transport category (RID):	2
Special provisions for carriage – Packages (RID):	W5
Special provisions for carriage – Loading, unloading and handling (RID):	CW9, CW11, CW36
Colis express (express parcels) (RID):	CE2
Hazard identification number (RID):	223

## 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

#### 15.1.1. EU Regulations

The following restrictions are applicable according to Annex XVII of the REACH Regulation (EC) No 1907/2006:

Reference code	Applicable on
40.	LNG – NATURAL GAS, REFRIGERATED LIQUID; Natural gas

LNG – NATURAL GAS, REFRIGERATED LIQUID is not on the REACH Candidate List

LNG – NATURAL GAS, REFRIGERATED LIQUID is not on the REACH Annex XIV List

LNG – NATURAL GAS, REFRIGERATED LIQUID is not subject to Regulation (EU) No 649/2012 of the European Parliament and of the Council of 4 July 2012 concerning the export and import of hazardous chemicals.

LNG – NATURAL GAS, REFRIGERATED LIQUID is not subject to Regulation (EU) No 2019/1021 of the European Parliament and of the Council of 20 June 2019 on persistent organic pollutants.

#### 15.1.2. National regulations

No additional information available

### 15.2. Chemical safety assessment

No chemical safety assessment has been carried out

## SECTION 16: Other information

Sources of Key data:

ECHA (European Chemicals Agency). CLP Inventory. 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, amending and repealing Directives 67/548/EEC and 1999/45/EC, and amending Regulation (EC) No 1907/2006. ECHA (European Chemicals Agency). CLP Inventory.

Other information:

None

### Full text of H and EUH statements:

Flam. Gas 1	Flammable gases, Category 1
Press. Gas (Ref. Liq.)	Gases under pressure: Refrigerated liquefied gas
H220	Extremely flammable gas
H280	Contains refrigerated gas; may cause cryogenic burns or injury.

SDS EU (REACH Annex II)

This information is based on our current knowledge and is intended to describe the product for the purposes of health, safety and environmental requirements only. It should not therefore be construed as guaranteeing any specific property of the product.