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

1.1. Product identifier

Trade name/designation : Liquefied Natural Gas
 EC-No. : 232-343-9
 CAS No. : 8006-14-2

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

Specific use(s) : Loading and unloading of ships, loading of tanks for use as raw material in industry and domestic

1.3. Details of the supplier of the safety data sheet

Company : REGASIFICADORA DEL NOROESTE S.A (REGANOSA)
 Punta Promontorio s/n
 15620 – Mugardos - A Coruña, España
 Tel. + 34 981 93 00 93 (24 horas)
 Contact E-mail: reganosa@reganosa.com

1.4. Emergency telephone number

SPAIN
 Servicio de Información Toxicológica
 Instituto Nacional de Toxicología,
 Departamento de Madrid

+34 91 562 04 20 (This telephone number is available 24 hours per day, 7 days per week. Emergency Service only in Spanish)

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture according to the Regulation (EU) 1272/2008

CLP- classification : The product is classified as hazardous in accordance with Regulation (EC) No. 1272/2008.

Flam. Gas. 1 H220
 Refrigerated Liquefied gas H281

Full text of H-phrases: see section 16.

2.2. Label elements according to Regulation (EU) 1272/2008

Hazard pictograms :



GHS02

Signal word : Danger
 Hazard statements : H220 - Extremely flammable gas
 H281 - Contains refrigerated gas; may cause cryogenic burns or injury
 Precautionary statements : P210 - Keep away from heat/sparks/open flames/hot surfaces. – no smoking.
 P282 - Wear cold insulating gloves/face shield/eye protection.
 P315 - Get immediate medical advice/attention.
 P336 - Thaw frosted parts with lukewarm water. Do not rub affected area.
 P377 - Leaking gas fire: Do not extinguish, unless leak can be stopped safely.
 P381 - Eliminate all ignition sources if safe to do so.
 P403 - Store in a well-ventilated place.

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2.3. Other hazards

Other hazards : Results of PBT and vPvB assessment :
No data available

SECTION 3: Composition/information on ingredients

3.1. Substances

Substance name	Product identifier	%	Classification according to Regulation (EU) No. 1272/2008 [CLP]
Natural gas	(CAS No.) 8006-14-2 (EC-No.) 232-343-9	100	Flam. Gas. 1, H220 Compressed gas , H280

Full text of H-phrases: see section 16.

3.2. Mixtures

Not applicable

SECTION 4: First aid measures

4.1. Description of first aid measures

Inhalation : Keep at rest.
Provide fresh air.
If breathing is difficult, give oxygen.
If breathing has stopped, apply artificial respiration.
Get medical advice/attention.

Skin contact : In case of frostbite, wash with plenty of water; do not remove clothing.
Immerse in cool water/wrap in wet bandages
Put victim at rest, cover with a blanket and keep warm
(Fire blanket)
Get medical advice/attention.
Wash contaminated clothing before reuse.

Eye contact : Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes
Get medical advice/attention.

Ingestion : Rinse mouth
Rinse mouth immediately and drink plenty of water.
Get medical advice/attention.

Additional advice : First aider: Pay attention to self-protection!
See also section 8.
Treat symptomatically.
Never give anything by mouth to an unconscious person or a person with cramps.
Show this safety data sheet to the doctor in attendance.
When in doubt or if symptoms are observed, get medical advice.

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

Inhalation : May be irritating.

Skin contact : May be irritating. May cause frostbite.

Eye contact : May be irritating. Causes frostbite burns to eyes.

Ingestion : Ingestion unlikely.

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

No data available

SECTION 5: Firefighting measures

5.1. Extinguishing media

Suitable extinguishing media : Carbon dioxide, Dry chemical, ABC-powder, Water spray, Foam.

Extinguishing media which shall not be used for safety reasons : Strong water jet.

5.2. Special hazards arising from the substance or mixture

Fire hazard : Extremely flammable gas

Specific hazards : Vapours can form explosive mixtures with air.
Vapours are heavier than air and may spread along floors.
From a temperature of approximately -104°C, the gas becomes lighter than air.
Vapours can travel considerable distances to a source of ignition where they can ignite, flash back, or explode.
Fire or intense heat may cause violent rupture of packages.
Container may explode if heated.
Hazardous decomposition products: COx

5.3. Advice for firefighters

Advice for firefighters : Special protective equipment for firefighters.
In case of fire: Wear self-contained breathing apparatus.
Use water spray jet to protect personnel and to cool endangered containers.
Evaluate area.
Collect contaminated fire extinguishing water separately. This must not be discharged into drains.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

For non-emergency personnel : Evacuate area.
Stay upwind/keep distance from source.
Provide adequate ventilation.
Use personal protective equipment as required.
See also section 8.
Avoid contact with skin, eyes and clothes.
Do not breathe gas.
Keep away from heat/sparks/open flames/hot surfaces. – No smoking.
Ensure that the equipment is adequately grounded.
Use explosion-proof machinery, apparatus, ventilation facilities, tools etc.
Use only non-sparking tools.

For emergency responders : Only qualified personnel equipped with suitable protective equipment may intervene.
See also section 8.

6.2. Environmental precautions

Environmental precautions : Prevent product from entering drains

6.3. Métodos y material de contención y de limpieza

Methods for cleaning up : Stop leak if safe to do so.
Allow to evaporate.
Hose down gases, fumes and/or dust with water.

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All processes must be supervised by specialists or authorised personnel

6.4. References to other sections

See also section 8
See also section 13.

SECTION 7: Handling and storage

7.1. Precautions for safe handling

- Handling :
- Extremely cold liquid and gas under pressure. Causes severe frostbite.
 - Provide adequate ventilation.
 - Check leak tightness/impermeability prior to use.
 - Use personal protective equipment as required.
 - See also section 8.
 - Do not breathe gas.
 - Avoid contact with skin, eyes and clothes.
 - Keep away from heat/sparks/open flames/hot surfaces. – No smoking.
 - Ensure that the equipment is adequately grounded.
 - Keep container tightly closed.
 - Use explosion-proof machinery, apparatus, ventilation facilities, tools etc.
 - Use only non-sparking tools.
 - See also section 10
- Advices on general occupational hygiene :
- Keep good industrial hygiene.
 - When using do not eat, drink or smoke.
 - Wash hands and face before breaks and immediately after handling of the product.
 - Take off contaminated clothing and wash before reuse.

7.2. Conditions for safe storage, including any incompatibilities

- Storage :
- Safe storage pressure vessel at a temperature below the critical point.
 - Keep container tightly closed in a cool, well-ventilated place.
 - Keep away from heat/sparks/open flames/hot surfaces. – No smoking.
 - Do not store near or with any of the incompatible materials listed in section 10.
 - Keep at temperature below 30 °C.
 - Avoid temperatures above 45 °C.
 - Keep away from direct sunlight.
- Packaging material :
- Keep/Store only in original container.

7.3 Specific end use(s)

No data available.

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

Exposure limit values :


Natural gas (8068-14-2)		
Italia - Portugal - USA ACGIH	ACGIH TWA (ppm)	1000 ppm

Recommended monitoring procedures :

- Personal monitoring
- Concentration measurement in air

DNEL : NA

PNEC : NA

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8.2. Exposure control

Personal protective equipment	: The type of protective equipment must be selected according to the concentration and amount of the dangerous substance at the specific workplace.
Respiratory protection	: Use self-contained respiratory apparatus for rescue and maintenance work in storage vessels. Self-contained open-circuit compressed air breathing apparatus (EN 137) O2- Deficiency: Wear a positive-pressure supplied-air respirator.
Hand protection	: The selection of specific gloves for a specific application and time of use in a working area, should also take into account other factors on the working place, such as (but not limited to): other chemicals that are possibly used, physical requirements (protection against cutting/drilling, skill, thermal protection), and the instructions/specifications of the supplier of gloves. Protective gloves against cold: cold insulating gloves (EN511) (Nitrile rubber).
Eye protection	: Tightly fitting safety goggles (EN166), Face-shield (EN166)
Body protection	: Wear suitable protective equipment
Thermal hazard protection	: Use dedicated equipment
Engineering control measures	: Closed system. Provide adequate ventilation. Use only in area provided with appropriate exhaust ventilation. A washing facility/water for eye and skin cleaning purposes should be present. Take necessary action to avoid static electricity discharge (which might cause ignition of organic vapours). Provide adequate precautions, such as electrical grounding and bonding, or inert atmospheres. Use only explosion-proof equipment. Organisational measures to prevent/limit releases, dispersion and exposure See also section 7.
Environmental exposure controls	: Prevent product from entering drains. Comply with applicable Community environmental protection legislation

SECTION 9: Physical and chemical properties

9.1. Information and chemical properties

Appearance	: Liquefied gas
Colour	: colourless
Odour	: odourless
Odour Threshold	: No data available
pH	: Not applicable
Melting point/range	: - 183 °C Methane
Boiling point/boiling range	: - 161 °C Methane
Flash point	: - 188 °C Methane
Evaporate rate	: No data available
Flammability (solid, gas)	: Extremely flammable
Exposure limits (LEL, UEL)	: LEL: 4.14 – UEL:17 vol % EN 61779-1
Vapour pressure	: 147 kPa Methane

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Vapour density	: >1 (air=1) 1,9 kg/m ³ (= < -160 °C)
Density	: 447,109 kg/m ³ (Normal conditions: 0°C, 1 atm)
Relative density	: 0,6031 (Normal conditions: 0°C, 1 atm)
Water solubility	: Insoluble
Water in other solvents	: No data available
Partition coefficient:n-octanol/water	: No data available
Autoignition temperature	: 600 °C Methane
Decomposition temperature	: No data available
Viscosity	: No data available
Explosive properties	: Not applicable The study does not need to be conducted because there are no chemical groups associated with explosive present in the molecule.
Oxidizing properties	: Not applicable The classification procedure needs not to be applied because there are no chemical groups present in the molecule which are associated with oxidising properties.
9.2. Other information	
Drop point/drop range	: < 5 °C Methane
Molecular weight	: 16.5-18.5 g/mol

SECTION 10: Stability and reactivity

10.1. Reactivity

Reactivity	: Extremely flammable gas See also section 10.5
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10.2. Chemical stability

Stability	: The product is stable under storage at normal ambient temperatures.
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10.3. Possibility of hazardous reactions

Possibility of hazardous reactions	: Reacts vigorously with strong oxidizers and acids
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10.4. Conditions to avoid

Conditions to avoid	: Heat, flames and sparks. Exposure to air
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10.5. Incompatible materials

Incompatible materials	: Strong oxidizing agents Halogens
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10.6. Hazardous decomposition products

Hazardous decomposition products	: Carbon oxides
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SECTION 11: Toxicological information

11.1. Information on toxicological effects

Acute toxicity	: Not classified (Based on available data, the classification criteria are not met.)
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Natural gas (8006-14-2)	
LC50/inhalation/4h/rat	658 mg/l/4h

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Skin corrosion/irritation	: Not classified (Based on available data, the classification criteria are not met.) pH: Not applicable
Serious eye damage/eye irritation	: Not classified (Based on available data, the classification criteria are not met.) pH: Not applicable
Respiratory or skin sensitisation	: Not classified (Based on available data, the classification criteria are not met.)
Germ cell mutagenicity	: Not classified (Based on available data, the classification criteria are not met.)
Carcinogenicity	: Not classified (Based on available data, the classification criteria are not met.)
Reproductive toxicity	: Not classified (Based on available data, the classification criteria are not met.)
Specific target organ toxicity (single exposure)	: Not classified (Based on available data, the classification criteria are not met.)
Specific target organ toxicity (repeated exposure)	: Not classified (Based on available data, the classification criteria are not met.)
Aspiration hazard	: Not classified (Based on available data, the classification criteria are not met.)

Other information

Symptoms related to the physical, chemical and toxicological characteristics, see section 4.2.

SECTION 12: Ecological information

12.1. Toxicity

Toxicity	: Not hazardous
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12.2. Persistence and degradability

Persistence and degradability	: Readily biodegradable
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12.3. Bioaccumulative potential

Bioaccumulative	: Low
Partition coefficient:n-octanol/water	: No data available

12.4. Mobility in soil

Movility	: Not applicable
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12.5. Results of PBT and vPvB assessment

PBT/vPvB	: No data available
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12.6. Other adverse effects

Other information	: No data available
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SECTION 13: Disposal considerations

13.1. Waste treatment methods

Waste from residues / unused products	: Handle with care. See also section 7 Handling and storage Collect and dispose of waste product at an authorised disposal facility. Dispose according to legislation.
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Contaminated packaging	: Never use pressure to empty container. Do not burn, or use a cutting torch on, the empty drum. Do not puncture or incinerate. Empty containers should be taken to an approved waste handling site for recycling or disposal. Dispose according to legislation.
Additional ecological information	: Do not allow to enter into surface water or drains
List of suggested waste codes/waste designations in accordance with the EWC	: Classified as hazardous waste according to European Union regulations. Waste codes should be assigned by the user, preferably in discussion with the waste disposal authorities.

SECTION 14: Transport information

14.1. UN number

UN-No. : 1972

14.2. UN proper shipping name

Proper Shipping Name : NATURAL GAS, REFRIGERATED LIQUID
Proper Shipping name IATA/IMDG : NATURAL GAS, REFRIGERATED LIQUID

14.3. Transport hazard class(es)

14.3.1. Overland transport

Class : 2 - Gases
Hazard identification number (Kemler No.) : 223
Classification code : 3F
ADR/RID-Labels : 2.1 – Flammable gases



14.3.2. Inland waterway transport (ADN)

ADN : Hazards: 2.1
Class (UN) : 2

14.3.3. Transport by sea

Clase : 2 – Gases

14.3.4. Air transport

Class of division : 2 – Gases

14.4. Packing group


No data available

14.5. Environmental hazards

Other information : No supplementary information available.

14.6 Special precautions for users

No data available

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14.7 Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code

No data available

SECTION 15: Regulatory information

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

15.1.1. UE-Regulations

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

40. Substances classified as flammable gases category 1 or 2, flammable liquids categories 1, 2 or 3, flammable solids category 1 or 2, substances and mixtures which, in contact with water, emit flammable gases, category 1, 2 or 3, pyrophoric liquids category 1 or pyrophoric solids category 1, regardless of whether they appear in Part 3 of Annex VI to Regulation (EC) No 1272/2008 or not. : Liquefied Natural Gas – Natural gas

This product contains an ingredient according to the candidate list of Annex XIV of the REACH Regulation 1907/2006/CE.

: None

Autorizaciones

: Not applicable

15.1.2. National regulations

15.2. Chemical safety assessment

Chemical Safety Assessment : For this substance a chemical safety assessment has not been carried out.


SECTION 16: Otra información

Full text of H and EUH-phases :

Compressed gas	: Gases under pressure Compressed gas
Flam. Gas. 1	: Flammable gases, hazard category 1
H220	: Extremely flammable gas.
H280	: Contains gas under pressure; may explode if heated.
H281	: Contains refrigerated gas; may cause cryogenic burns or injury.

Key literature references and sources for data : European Chemicals Bureau
ECHA, European Chemical Agency (<http://echa.europa.eu/>)
MSDS Supplier

Abbreviations and acronyms : ADN = Accord Européen relatif au Transport International des Marchandises Dangereuses par voie de Navigation du Rhin
ADR = Accord européen relatif au transport international des marchandises Dangereuses par Route
CLP = Classification, Labelling and Packaging Regulation according to 1272/2008/EC
IATA = International Air Transport Association
IMDG = International Maritime Dangerous Goods Code

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LEL = Lower Explosive Limit/Lower Explosion Limit
 UEL = Upper Explosion Limit/Upper Explosive Limit
 REACH = Registration, Evaluation, Authorisation and Restriction of Chemicals
 CSR = El informe sobre la seguridad química
 DNEL = Nivel sin efecto derivado
 LD50 = Median lethal dose
 N.O.S. = Not otherwise Specific
 PNEC = Predicted No Effect Concentration
 STEL = Short term exposure limit
 TLV = Threshold limits
 TWA = time weighted average
 PBT = Persistent, bioaccumulating and toxic
 vPvB = Very persistent and very bioaccumulating
 NA = Not applicable

Document History

Version	Comments	Date
Versión 1	First edition	Feb/2015
Versión 2	<ul style="list-style-type: none"> - Section 2: Elimination of the substance classification according to EU Directives 67/548/CEE by its repeal from the 1st June 2015 - Section 3: Elimination of the substance classification according to EU Directives 67/548/CEE by its repeal from the 1st June 2015 	May/2015
Version 3	- Section 1.4: Modification of the emergency telephone number	Jul/2015
Version 4	- Section 9: Updating of units of the density and relative density	Aug/2015

The contents and format of this SDS are in accordance with EEC Commission Directive 1999/45/EC, 67/548/EC, 1272/2008/EC and EEC Commission Regulation 1907/2006/CE (REACH) Anexo II.

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