SAFETY DATA SHEET

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

1.1. Product identifier

Name of the substance	Eastern Mediterranean Natural Gas
Identification number	-
Registration number	Exempted by Annex V(7)
Synonyms	None.
Issue date	03-September-2014
Version number	01
Revision date	-
Supersedes date	-

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

Identified uses	Fuel
Uses advised against	Use in accordance with supplier's recommendations.

1.3. Details of the supplier of the safety data sheet

Manufacturer	Noble Energy International Ltd
Address	73 Metochiou Str., 1st floor 2407 Engomi, Lefkosia, Cyprus
General Information	357.22.449190
e-mail	SDSGLOBAL@nobleenergyinc.com
1.4. Emergency telephone number	Poison Control: (1404)
24 Hour Emergency	1-760-476-3961
Access code	333053

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

Classification according to Directive 67/548/EEC or 1999/45/EC as amended

Classification F+;R12

Classification according to Regulation (EC) No 1272/2008 as amended

Physical hazards

Flammable gases (including chemically unstable gases)	Category 1	H220 - Extremely flammable gas.

Hazard summary

Physical hazards	Extremely flammable.
Health hazards	Not classified for health hazards.
Environmental hazards	Not classified for hazards to the environment.
Specific hazards	Breathing of high concentrations may cause dizziness, light-headedness, headache, nausea and loss of co-ordination. Continued inhalation may result in unconsciousness. Suffocation (asphyxiant) hazard - if allowed to accumulate to concentrations that reduce oxygen below safe breathing levels. Contact with liquefied gas can cause damage (frostbite) due to rapid evaporative cooling.
Main symptoms	Narcosis. Behavioural changes. Decrease in motor functions. Contact with evaporating liquid may cause frostbite or freezing of skin.

2.2. Label elements

Label according to Regulation (EC) No. 1272/2008 as amended

Contains:	Methane
Identification number	-
Hazard pictograms	
Signal word	Danger

Hazard statements H220 - Extremely flammable gas.
H280 - Contains gas under pressure; may explode if heated. May displace oxygen and cause rapid suffocation.

Precautionary statements

Prevention P210 - Keep away from heat/sparks/open flames/hot surfaces. No smoking.

Response P377 - Leaking gas fire: Do not extinguish, unless leak can be stopped safely.
P381 - Eliminate all ignition sources if safe to do so.

Storage P410 - Protect from sunlight.

Disposal P501 - Dispose of contents/container in accordance with local/regional/national/international regulations.

Supplemental label information None.

2.3. Other hazards May displace oxygen and cause rapid suffocation.

SECTION 3: Composition/information on ingredients

3.1. Substances

General information

Chemical name	%	CAS-No. / EC No.	REACH Registration No.	INDEX No.	Notes
Methane	> 99	74-82-8 200-812-7	Exempted by Annex V (7)	601-001-00-4	
Classification: **DSD:** F+;R12					
CLP: Flam. Gas 1;H220					U

Composition comments All concentrations are in percent by weight unless ingredient is a gas. Gas concentrations are in percent by volume.
Note: Natural gas can contain minor amounts of sulfur, nitrogen and oxygen containing organic compounds as well as trace amounts of heavy metals like mercury, arsenic, nickel, and vanadium. Composition can vary depending on the source and formation.

SECTION 4: First aid measures

General information Ensure that medical personnel are aware of the material(s) involved, and take precautions to protect themselves.

4.1. Description of first aid measures

Inhalation Move injured person into fresh air and keep person calm under observation. If breathing is difficult, give oxygen. Get medical attention if any discomfort continues.

Skin contact Frostbite: Do not remove clothes, but flush with copious amounts of lukewarm water. Call an ambulance and continue to flush during transportation to hospital.

Eye contact If frostbite occurs, immediately flush eyes with plenty of warm water (not exceeding 105°F/41°C) for at least 15 minutes. If easy to do, remove contact lenses. Get medical attention if irritation develops or persists.

Ingestion This material is a gas under normal atmospheric conditions and ingestion is unlikely.

4.2. Most important symptoms and effects, both acute and delayed Exposure to rapidly expanding gas or vapourizing liquid may cause frostbite ("cold burn"). Narcosis. Behavioural changes. Decrease in motor functions.

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

SECTION 5: Firefighting measures

General fire hazards Extremely flammable gas.

5.1. Extinguishing media

Suitable extinguishing media Foam. Dry chemical powder. Carbon dioxide (CO_2). Water fog.

Unsuitable extinguishing media Do not use a solid water stream as it may scatter and spread fire.

5.2. Special hazards arising from the substance or mixture Containers may explode when heated. Thermal decomposition or combustion may liberate toxic gases or fumes.

5.3. Advice for firefighters

Special protective equipment for firefighters Self-contained breathing apparatus and full protective clothing must be worn in case of fire.

Special fire fighting procedures In case of fire: Evacuate area. Fight fire remotely due to the risk of explosion.

Specific methods	Move container from fire area if it can be done without risk. Use water spray to keep fire-exposed containers cool.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

For non-emergency personnel	Eliminate sources of ignition. Wear appropriate personal protective equipment (See Section 8).
For emergency responders	Keep unnecessary personnel away.
6.2. Environmental precautions	Avoid discharge into drains, water courses or onto the ground.
6.3. Methods and material for containment and cleaning up	Eliminate sources of ignition. Allow gas to dissipate into the atmosphere. Large Spills: Prevent runoff from entering drains, sewers, or streams. Dike for later disposal.
6.4. Reference to other sections	For personal protection, see section 8 of the SDS. For waste disposal, see section 13 of the SDS.

SECTION 7: Handling and storage

7.1. Precautions for safe handling	Keep away from heat, sparks and open flame. Do not breathe mist or vapour. Avoid contact with eyes, skin, and clothing. Wash thoroughly after handling. Use only with adequate ventilation.
7.2. Conditions for safe storage, including any incompatibilities	Keep container tightly closed and in a well-ventilated place. Store away from incompatible materials.
7.3. Specific end use(s)	Fuel.

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

Occupational exposure limits	No exposure limits noted for ingredient(s).
Biological limit values	No biological exposure limits noted for the ingredient(s).
Recommended monitoring procedures	Follow standard monitoring procedures.
Derived no-effect level (DNEL)	Not available.
Predicted no effect concentrations (PNECs)	Not available.

8.2. Exposure controls

Appropriate engineering controls	Ensure adequate ventilation, especially in confined areas. Provide easy access to water supply and eye wash facilities.

Individual protection measures, such as personal protective equipment

General information	The type of protective equipment must be selected according to the concentration and amount of the dangerous substance at the specific workplace.
Eye/face protection	Wear safety glasses with side shields (or goggles).
Skin protection	
- Hand protection	Chemical resistant gloves are recommended.
- Other	Wear chemical-resistant gloves, footwear, and protective clothing appropriate for the risk of exposure. Contact health and safety professional or manufacturer for specific information.
Respiratory protection	If engineering controls do not maintain airborne concentrations below recommended exposure limits (where applicable) or to an acceptable level (in countries where exposure limits have not been established), an approved respirator must be worn. Respirator type:
Thermal hazards	Wear appropriate thermal protective clothing, when necessary.
Hygiene measures	Always observe good personal hygiene measures, such as washing after handling the material and before eating, drinking, and/or smoking. Routinely wash work clothing and protective equipment to remove contaminants.
Environmental exposure controls	Environmental manager must be informed of all major releases.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Appearance	Colorless gas.
Physical state	Gas.
Form	Gas.
Colour	Colourless.
Odour	Odourless.

Odour threshold	Not relevant.
pH	Not relevant.
Melting point/freezing point	-182,47 °C (-296,45 °F)
Initial boiling point and boiling range	-107,5 °C (-161,5 °F)
Flash point	-88,6 °C (-127,5 °F) Pensky-Martens Closed Cup
Evaporation rate	Not relevant.
Flammability (solid, gas)	Flammable gas.
Upper/lower flammability or explosive limits	
Flammability limit - lower (%)	5
Flammability limit - upper (%)	15
Vapour pressure	Not relevant.
Vapour density	0,68 @ 59°F (15°C) (air=1)
Relative density	0,42 @ 77°F (25°C)
Solubility(ies)	22,7 mg/l
Partition coefficient (n-octanol/water)	1,1
Auto-ignition temperature	287 °C (548,6 °F)
Decomposition temperature	Not relevant.
Viscosity	0,01 mPa·s
Viscosity temperature	27 °C (80,6 °F)
Explosive properties	May form explosive mixtures with air.
Oxidizing properties	Not applicable.
9.2. Other information	
Density	Gas Density at boiling point 1,816 kg/m3

SECTION 10: Stability and reactivity

10.1. Reactivity	The product is stable and non-reactive under normal conditions of use, storage and transport.
10.2. Chemical stability	Material is stable under normal conditions.
10.3. Possibility of hazardous reactions	Hazardous polymerisation does not occur.
10.4. Conditions to avoid	Keep away from heat, sparks, and flame.
10.5. Incompatible materials	Strong oxidising agents.
10.6. Hazardous decomposition products	No hazardous decomposition products are known.

SECTION 11: Toxicological information

General information	Contact with liquefied gas can cause damage (frostbite) due to rapid evaporative cooling.
Information on likely routes of exposure	
Inhalation	Suffocation (asphyxiant) hazard - if allowed to accumulate to concentrations that reduce oxygen below safe breathing levels. In high concentrations, vapours are narcotic and may cause headache, fatigue, dizziness and nausea.
Skin contact	Contact with liquefied gas can cause damage (frostbite) due to rapid evaporative cooling.
Eye contact	Contact with liquefied gas can cause damage (frostbite) due to rapid evaporative cooling.
Ingestion	This material is a gas under normal atmospheric conditions and ingestion is unlikely.
Symptoms	Narcosis. Behavioural changes. Decrease in motor functions. Exposure to rapidly expanding gas or vapourizing liquid may cause frostbite ("cold burn").

11.1. Information on toxicological effects

Acute toxicity	Suffocation (asphyxiant) hazard - if allowed to accumulate to concentrations that reduce oxygen below safe breathing levels. Exposure to rapidly expanding gas or vapourizing liquid may cause frostbite ("cold burn").

Components	Species	Test results
Methane (CAS 74-82-8)		
Acute		
Inhalation		
LC50	Mouse	1237 mg/l, 120 Minutes
		52 %, 120 Minutes
	Rat	1355 mg/l

Skin corrosion/irritation Not classified.

Serious eye damage/eye irritation Not classified.

Respiratory sensitisation Not a respiratory sensitiser.

Skin sensitisation Not a skin sensitiser.

Germ cell mutagenicity Not classified.

Carcinogenicity This product is not considered to be a carcinogen by NTP, IARC, or OSHA.

Reproductive toxicity Not classified.

Specific target organ toxicity - single exposure Not classified.

Specific target organ toxicity - repeated exposure Not classified.

Aspiration hazard Not applicable.

Mixture versus substance information Not available.

Other information Not available.

SECTION 12: Ecological information

12.1. Toxicity Not expected to be harmful to aquatic organisms.

12.2. Persistence and degradability Not established.

12.3. Bioaccumulative potential

Partition coefficient n-octanol/water (log Kow)

Eastern Mediterranean Natural Gas (CAS Mixture) 1,09

Bioconcentration factor (BCF) Not available.

12.4. Mobility in soil Not available.

12.5. Results of PBT and vPvB assessment Not a PBT or vPvB substance or mixture.

12.6. Other adverse effects Not available.

12.7. Additional information Not applicable.

SECTION 13: Disposal considerations

13.1. Waste treatment methods

Residual waste Dispose of in accordance with local regulations.

Contaminated packaging Since emptied containers retain product residue, follow label warnings even after container is emptied.

EU waste code Waste codes should be assigned by the user based on the application for which the product was used.

Disposal methods/information Do not discharge into drains, water courses or onto the ground. Discharge, treatment, or disposal may be subject to national, state, or local laws.

Special precautions Dispose of in accordance with local regulations.

SECTION 14: Transport information

ADR

14.1. UN number UN1971

14.2. UN proper shipping name Methane, compressed

14.3. Transport hazard class(es)

Class 2.1

Subsidiary risk 6.1

Label(s)	2.1
Hazard No. (ADR)	Not available.
Tunnel restriction code	Not available.
14.4. Packing group	Not applicable.
14.5. Environmental hazards	No.
14.6. Special precautions for user	Not available.

RID

14.1. UN number	UN1971
14.2. UN proper shipping name	Methane, compressed
14.3. Transport hazard class(es)	
Class	2.1
Subsidiary risk	6.1
Label(s)	2.1
14.4. Packing group	Not applicable.
14.5. Environmental hazards	No.
14.6. Special precautions for user	Not available.

ADN

14.1. UN number	UN1971
14.2. UN proper shipping name	Methane, compressed
14.3. Transport hazard class(es)	
Class	2.1
Subsidiary risk	6.1
Label(s)	2.1
14.4. Packing group	Not applicable.
14.5. Environmental hazards	No.
14.6. Special precautions for user	Not available.

IATA

14.1. UN number	UN1971
14.2. UN proper shipping name	Methane, compressed
14.3. Transport hazard class(es)	
Class	2.1
Subsidiary risk	6.1
Label(s)	2.1
14.4. Packing group	Not applicable.
14.5. Environmental hazards	No.
14.6. Special precautions for user	Not available.

IMDG

14.1. UN number	UN1971
14.2. UN proper shipping name	Methane, compressed
14.3. Transport hazard class(es)	
Class	2.1
Subsidiary risk	6.1
Label(s)	2.1
14.4. Packing group	Not applicable.
14.5. Environmental hazards	
Marine pollutant	No.
EmS	Not available.
14.6. Special precautions for user	Not available.

14.7. Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code	This substance/mixture is not intended to be transported in bulk.

SECTION 15: Regulatory information

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

EU regulations

Regulation (EC) No. 1005/2009 on substances that deplete the ozone layer, Annex I

Not listed.

Regulation (EC) No. 1005/2009 on substances that deplete the ozone layer, Annex II

Not listed.

Regulation (EC) No. 850/2004 On persistent organic pollutants, Annex I as amended

Not listed.

Regulation (EC) No. 689/2008 concerning the export and import of dangerous chemicals, Annex I, part 1 as amended

Not listed.

Regulation (EC) No. 689/2008 concerning the export and import of dangerous chemicals, Annex I, part 2 as amended

Not listed.

Regulation (EC) No. 689/2008 concerning the export and import of dangerous chemicals, Annex I, part 3 as amended

Not listed.

Regulation (EC) No. 689/2008 concerning the export and import of dangerous chemicals, Annex V as amended

Not listed.

Regulation (EC) No. 166/2006 Annex II Pollutant Release and Transfer Registry

Not listed.

Regulation (EC) No. 1907/2006, REACH Article 59(10) Candidate List as currently published by ECHA

Not listed.

Authorisations

Regulation (EC) No. 1907/2006, REACH Annex XIV Substances subject to authorization, as amended

Not listed.

Restrictions on use

Regulation (EC) No. 1907/2006, REACH Annex XVII Substances subject to restriction on marketing and use as amended

Not listed.

Directive 2004/37/EC: on the protection of workers from the risks related to exposure to carcinogens and mutagens at work

Not listed.

Directive 92/85/EEC: on the safety and health of pregnant workers and workers who have recently given birth or are breastfeeding

Not listed.

Other EU regulations

Directive 96/82/EC (Seveso II) on the control of major-accident hazards involving dangerous substances

Not listed.

Directive 98/24/EC on the protection of the health and safety of workers from the risks related to chemical agents at work

Methane (CAS 74-82-8)

Directive 94/33/EC on the protection of young people at work

Not listed.

National regulations	Not available.
15.2. Chemical safety assessment	Not available.

SECTION 16: Other information

List of abbreviations	Not available.
References	ECHA registered substances database HSDB® - Hazardous Substances Data Bank IARC Monographs. Overall Evaluation of Carcinogenicity National Toxicology Program (NTP) Report on Carcinogens Registry of Toxic Effects of Chemical Substances (RTECS)
Information on evaluation method leading to the classification of mixture	Not available.
Full text of any statements or R-phrases and H-statements under Sections 2 to 15	R12 Extremely flammable. H220 Extremely flammable gas.
Training information	Follow training instructions when handling this material.
Further information	Not applicable.

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