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SAFETY DATA SHEET

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**1 Identification of the substance or preparation and of the company/undertaking**

1.1 Product identifier

Product Name: PROPANE  
Datasheet Number: 650391-905615 1. 0. 0  
Product Part Number: 650391 / 905616  
Head Office:: Wilhelmsen Ships Service AS  
address: Strandveien 20, N1324 Lysaker, Norway  
.: Tel:(+47) 67 58 45 50

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

Compressed gas

1.3 Details of the supplier of the safety data sheet

Name of Supplier: Wilhelmsen Ships Service AS  
Address of Supplier: Willem Barentszstraat 50  
3165AB Rotterdam  
The Netherlands  
Telephone: +31 10 4877 777  
Fax: +31 10 4877 888  
Responsible Person: Patrick Rijdsdijk, Product HSE Manager, Tel.:+31 6 349 440 35  
Email: patrick.rijdsdijk@wilhelmsen.com

1.4 Emergency telephone number

**\*\*ONLY TO BE USED IN CASE OF AN INCIDENT\*\***  
NCEC: +44 1865 407333, CHEMTREC (800) 424 9300  
American Chemistry Council +1 703 527 3887,  
Greece +30 210 7793777

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**2 Hazards identification**

2.1 Classification of the substance or mixture

- Regulations 1272/2008/EEC. Classification, labeling and packing of dangerous substances and preparations
- Council Directive 1999/45/EEC Classification, packing and labelling of dangerous preparations.
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- Flam. Gas 1

2.2 Label elements



- Signal Word: Danger
- Symbols: F+, GHS02, GHS04

Hazard phrases

- Extremely flammable gas.
- Contains gas under pressure; may explode if heated.

Precautionary Phrases

- Keep away from heat/sparks/open flames/hot surfaces. - No smoking.
- Leaking gas fire: Do not extinguish, unless leak can be stopped safely.
- Eliminate all ignition sources if safe to do so.
- Store in a well-ventilated place.

## PROPANE

### 2 Hazards identification (....)

#### Risk Phrases

- Extremely Flammable (R12)

#### Safety Phrases

- Keep container in a well ventilated place (S9)
- Keep away from sources of ignition - No Smoking (S16)

#### 2.3 Other hazards

- None

### 3 Composition/information on ingredients

#### 3.1 Mixtures

Chemical Name	Concentration	CAS Number	EC Number	R/H Phrases*	Symbols
Propane	>99%	74-98-6	200-827-9	R12 - H220, H280	F+, GHS02 / GHS04

\*See Section 16

### 4 First aid measures

#### 4.1 Description of first aid measures

- Thaw frosted parts with lukewarm water. Do not rub affected area.
- In case of contact with liquid, thaw frosted parts with water. Do not attempt to remove clothing which has stuck to the skin
- Get immediate medical advice/attention.
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- IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
- If substance has got into eyes, immediately wash out with plenty of water for at least 15 minutes
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- IF INHALED: If breathing is difficult, remove to fresh air and keep at rest in a position comfortable for breathing.
- Apply artificial respiration only if patient is not breathing
- When in doubt or symptoms persist, seek medical attention

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

- In cases of severe exposure, shortness of breath may develop
- Asphyxiant
- Possible frost-bite of affected areas

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

### 5 Fire-fighting measures

#### 5.1 Extinguishing media

- May be extinguished with water fog/spray. Use alcohol resistant foam if available

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

- Inform Fire Brigade of potential danger of exploding and rocketing cylinders
- Pressurized container
- Vapours may ignite

#### 5.3 Advice for firefighters

- Explosion risk in case of fire.
- Inform Fire Brigade of potential danger of exploding and rocketing cylinders
- Keep container(s) exposed to fire cool, by spraying with water
- Leaking gas fire: Do not extinguish, unless leak can be stopped safely.
- Vapours are heavier than air and may travel considerable distances to a source of ignition and flashback

## PROPANE

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### 6 Accidental release measures

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

- Shut off all ignition sources
- In poorly ventilated areas or confined spaces, use an airline respirator or self-contained breathing apparatus
- Vapours are heavier than air and may travel considerable distances to a source of ignition and flashback

#### 6.2 Environmental Precautions

- No special precautions are required for this product

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

- Shut off source of leak if safe to do so
- Allow product to evaporate
- Ventilate area

#### 6.4 Reference to other sections

- See Section 5 and 10
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### 7 Handling and storage

#### 7.1 Precautions for safe handling

- Use only outdoors or in a well-ventilated area.
- Take precautionary measures against static discharge.
- Do not spray on naked flame or any incandescent material

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

- Store in a well-ventilated place. Keep cool.
- Do not store above 45 °C

#### 7.3 Specific end use(s)

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### 8 Exposure controls/personal protection

#### 8.1 Control parameters

- Propane  
TLV (TWA) 1000 mg/m<sup>3</sup> ( )

#### 8.2 Exposure controls

- The undiluted product must not be used in a confined space without good ventilation

##### Occupational exposure controls

- No respiratory protection is required



No Flames



No Smoking

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### 9 Physical and chemical properties

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

- Odour: Odourless
  - Appearance: Liquefied pressure gas
  - Boiling point -42 °C at 760 mm /Hg
  - Vapour pressure 8.3 bar at 20 deg C
  - Vapour density (air = 1) 1.16
  - Melting point -187 °C at 760 mm /Hg
  - Water solubility 75 mg/l
  - Lower flammability limit 1.7%(in air), Upper flammability limit 9.5%(in air)
  - Auto-ignition point 470 deg C at 760 mm Hg
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## PROPANE

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### 9 Physical and chemical properties (....)

#### 9.2 Other information

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### 10 Stability and reactivity

#### 10.1 Reactivity

- This article is considered stable under normal conditions

#### 10.2 Chemical stability

- Considered stable under normal conditions

#### 10.3 Possibility of hazardous reactions

- May form explosive vapour/air mixtures
- Vapours may ignite

#### 10.4 Conditions to avoid

- Avoid overheating
- Keep away from naked flames, incandescent or hot surfaces

#### 10.5 Incompatible materials

- Contact with oxidizing substances may form explosive gases

#### 10.6 Hazardous Decomposition Products

- No hazardous decomposition products known
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### 11 Toxicological information

#### 11.1 Information on toxicological effects

- No experimental data available

##### Inhalation

- In cases of severe exposure, shortness of breath may develop
- Asphyxiant

##### Contact with skin

- May cause frost-bite

##### Contact with eyes

- May cause frost-bite

##### Ingestion

- Not regarded as a potential route of exposure.

##### Carcinogenicity

- No evidence of carcinogenic effects

##### Teratogenicity

- No evidence of reproductive effects

##### Mutagenicity

- No evidence of reproductive effects
- 

### 12 Ecological information

#### 12.1 Toxicity

- On available data, substance is not harmful to aquatic life

#### 12.2 Persistence and degradability

- No information available

#### 12.3 Bioaccumulation Potential

- Bioaccumulation is insignificant

#### 12.4 Mobility in soil

- This substance is involatile
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### 12 Ecological information (....)

#### 12.5 Results of PBT and vPvB assessment

#### 12.6 Other Adverse Effects

- This product is controlled under the "Montreal Protocol" (1992 revision).
  - Global Warming Potential: <1 (CO<sub>2</sub> = 1; 100 years)
  - Ozone Depletion Potential: 0
  - GWP and ODP values according to IPCC/ASHRAE/ARI.
  - IPCC = Intergovernmental Panel on Climate Control
  - ASHRAE = American Society of Heating, Refrigeration and Air-Conditioning Engineers
  - ARI = American Refrigeration Institute
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### 13 Disposal considerations

#### 13.1 Waste treatment methods

- Dispose of contents/container to an authorised waste collection point
- Disposal should be in accordance with local, state or national legislation

#### Classification

- EU Waste class: -
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### 14 Transport information



Flammable gas.

#### 14.1 UN Number

- UN1978

#### 14.2 UN Proper Shipping Name

- Propane

#### 14.3 Transport hazard class(es)

- 2.1

#### 14.4 Packing group

- -

#### 14.5 Environmental hazards

- On available data, substance is not harmful to the environment

#### 14.6 Special precautions for user

- Forbidden for air transport

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

- Not applicable

#### Other information

##### Road/Rail (ADR/RID)

Proper Shipping Name:	Propane	ADR Hazard Class:	2.1
ADR UN No.:	UN1978	ADR subrisk:	-
ADR Packing Group:	-		
ADR Flashpoint:	-		

##### Sea (IMDG)

Proper Shipping Name:	Propane	IMDG Hazard Class.:	2.1
IMDG UN No.:	UN1978	IMDG EmS:	F-D, S-U
IMDG Pack Group.:	-	IMDG Flashpoint:	-
IMDG subrisk:	-		

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### 14 Transport information (....)

#### Air (ICAO/IATA)

Proper Shipping Name:	Propane	ICAO Hazard Class.:	2.1
ICAO Un No.:	UN1978	ICAO subrisk:	-
ICAO Packing Group.:	-		
ICAO Flashpoint:	-		

#### DOT / CFR (US Department of Transportation)

DOT Proper Shipping Name:	Propane	Identification Number:	UN1978
Hazardous Material:	Propane	DOT subrisk:	-
Hazard Class:	2.1		
Product RQ (lbs):	-		
DOT Flashpoint:	-		

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### 15 Regulatory information

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

- Regulations 1272/2008/EEC. Classification, labeling and packing of dangerous substances and preparations
- Council Directive 1999/45/EEC Classification, packing and labelling of dangerous preparations.
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- This Safety Data Sheet is provided in compliance with The Dangerous Substances Directive (67/548/EEC)
- This Safety Data Sheet has been prepared in accordance with article 31 and annex II in REACH and Directive 453/2010/EU.

#### 15.2 Chemical Safety Assessment

None

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### 16 Other information

Text of R and S phrase codes used in this safety data sheet:- H220: Extremely flammable gas.; H280: Contains gas under pressure; may explode if heated.; R12: Extremely Flammable.

The data given here is based on current knowledge and experience. This Safety Data Sheet describes the product in terms of safety requirements and does not signify any warranty with regard to the product's properties

The data given here only applies when product used for proper application(s). The product is not sold as suitable for other applications - usage in such may cause risks not mentioned in this sheet. Do not use for other application(s) without seeking advice from manufacturer

The information provided about the product on this Safety Data Sheet has been compiled from knowledge of the individual constituents

