

Trade name: CARE 40

Current version : 1.0.0, issued: 23.08.2016

Replaced version: -, issued: -

Region: GB

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

**1.1 Product identifier**

Trade name

**CARE 40**

Substance name propane  
 REACH registration no. 01-2119486944-21

**Identification numbers**

CAS no. 74-98-6  
 EC no. 200-827-9  
 Index no. 601-003-00-5

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

**Relevant identified uses of the substance or mixture**

Refrigerant for professional use in ultra-low temperature freezers

**Uses advised against**

No data available.

**1.3 Details of the supplier of the safety data sheet**

**Address**

Eppendorf AG  
 Barkhausenweg 1  
 D-22339 Hamburg

Telephone no. +49 40 53801-0

**Information provided by / telephone**

Eppendorf Application-Hotline  
 Tel.: +49 1803 66 67 89  
 Fax: +49 4053 99 01 25  
 email: support@eppendorf.com

**Advice on Safety Data Sheet**

sdb\_info@umco.de

**1.4 Emergency telephone number**

For medical advice (in German and English):  
 +49 (0)551 192 40 (Giftinformationszentrum Nord)

**SECTION 2: Hazards identification**

**2.1 Classification of the substance or mixture**

**Classification in accordance with Regulation (EC) No 1272/2008 (CLP)**

Flam. Gas 1; H220  
 Press. Gas liq.; H280

**Classification information**

This product is assessed and classified using the methods and criteria below referred to in Article 9 of Regulation (EC) n° 1272/2008:

Physical hazards: determined through assessment data based on the methods or standards referred to in part 2 of Annex I to CLP

Health hazards and environmental hazards: determined through toxicological and ecotoxicological assessment data based on the methods or standards referred to in Part 3 and 4 of Annex I to CLP.

**2.2 Label elements**

**Labelling according to Regulation (EC) No 1272/2008 (CLP Regulation)**

**Product identifier**

74-98-6 (propane)

# EC safety data sheet

Trade name: CARE 40

Current version : 1.0.0, issued: 23.08.2016

Replaced version: -, issued: -

Region: GB

## Hazard pictograms



GHS02



GHS04

## Signal word

Danger

## Hazard statements

H220 Extremely flammable gas.  
H280 Contains gas under pressure; may explode if heated.

## Precautionary statements

P210 Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.  
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.

## 2.3 Other hazards

Vapours can form an explosive mixture with air.

PBT assessment

The product is not considered to be a PBT.

vPvB assessment

The product is not considered to be a vPvB.

## SECTION 3: Composition/information on ingredients

### 3.1 Substances

#### Chemical characterization

Substance name propane  
Formula C<sub>3</sub> H<sub>8</sub>  
Molecular weight 44.09

#### Identification numbers

CAS no. 74-98-6  
EC no. 200-827-9  
Index no. 601-003-00-5

### 3.2 Mixtures

Not applicable. The product is not a mixture.

## SECTION 4: First aid measures

### 4.1 Description of first aid measures

#### General information

If unconscious place in recovery position and seek medical advice.

#### After inhalation

Remove to fresh air, keep patient warm and at rest. Take medical treatment.

#### After skin contact

Do not attempt to remove any clothing that is frozen onto the skin. In case of frostbite: warm up frostbitten area by immersing the affected area in warm (but not hot) water. Remove contaminated clothing immediately and dispose of safely. Seek medical attention.

#### After eye contact

Remove contact lenses. Rinse eye thoroughly under running water keeping eyelids wide open and protecting the unaffected eye (at least 10 to 15 minutes). Seek medical assistance.

#### After ingestion

Seek medical advice.

Trade name: CARE 40

Current version : 1.0.0, issued: 23.08.2016

Replaced version: -, issued: -

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

No data available.

**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**

Foam; Water mist; Extinguishing powder; Carbon dioxide

**Unsuitable extinguishing media**

High power water jet

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

In case of fires, hazardous combustion gases are formed: Carbon monoxide (CO). In case of fire: danger of pressure build up, which could result in container rupture.

**5.3 Advice for firefighters**

Wear protective clothing. Use self-contained breathing apparatus. Cool endangered containers with water spray jet.

**SECTION 6: Accidental release measures**

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

**For non-emergency personnel**

Close leaks. Keep away sources of ignition. Refer to protective measures listed in sections 7 and 8.

**For emergency responders**

No data available. Personal protective equipment (PPE) - see Section 8.

**6.2 Environmental precautions**

Do not discharge into the drains/surface waters/groundwater.

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

Allow to evaporate.

**6.4 Reference to other sections**

No data available.

**SECTION 7: Handling and storage**

**7.1 Precautions for safe handling**

**Advice on safe handling**

Ensure adequate ventilation. Do not breathe steams or mist of the product. In case of accidental release: danger due to low temperature of the liquid product.

**General protective and hygiene measures**

Do not eat or drink during work - no smoking. Avoid prolonged and/or repeated contact with skin.

**Advice on protection against fire and explosion**

Keep away from ignition sources and provide for good ventilation. Take precautionary measures against static charges. No sparking tools should be used.

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

**Technical measures and storage conditions**

Protect from direct sunlight. Protect from temperatures over 50°C.

**Requirements for storage rooms and vessels**

Keep container tightly closed. Keep only in the original container (with safety valve).

**Advice on storage assembly**

Do not store together with oxidizing agents.

EC safety data sheet

Trade name: CARE 40

Current version : 1.0.0, issued: 23.08.2016

Replaced version: -, issued: -

Region: GB

7.3 Specific end use(s)

No data available.

**SECTION 8: Exposure controls/personal protection**

8.1 Control parameters

Occupational exposure limit values

No	Substance name	CAS no.	EC no.
1	propane	74-98-6	200-827-9
List of approved workplace exposure limits (WELs) / EH40			
	Propane		

8.2 Exposure controls

**Appropriate engineering controls**

Provide adequate ventilation. Where reasonably practicable this should be achieved by the use of local exhaust ventilation and good general extraction. If these are not sufficient to maintain concentrations of particulates and solvent vapour below the OEL (=Occupational ExposureLimit), suitable respiratory protection must be worn.

**Personal protective equipment**

**Respiratory protection**

If workplace exposure limits are exceeded, a respiration protection approved for this particular job must be worn.

Respiratory filter (gas) : AX

**Eye / face protection**

Tightly fitting safety glasses (EN 166).

**Hand protection**

Sufficient protection is given wearing suitable protective gloves checked according to i.e. EN 374, in the event of risk of skin contact with the product . Before use, the protective gloves should be tested in any case for its specific work-station suitability (i.e. mechanical resistance, product compatibility and antistatic properties). Adhere to the manufacturer's instructions and information relating to the use, storage, care and replacement of protective gloves. Protective gloves shall be replaced immediately when physically damaged or worn. Design operations thus to avoid permanent use of protective gloves.

**Other**

Normal chemical work clothing.

**Environmental exposure controls**

No data available.

**SECTION 9: Physical and chemical properties**

9.1 Information on basic physical and chemical properties

<b>Form/Colour</b>	
liquified gas	
colourless	
<b>Odour</b>	
odourless	
<b>Odour threshold</b>	
No data available	
<b>pH value</b>	
Not applicable	
<b>Boiling point / boiling range</b>	
Value	-42.1 °C
<b>Melting point / melting range</b>	
Value	-187.6 °C

EC safety data sheet

Trade name: CARE 40

Current version : 1.0.0, issued: 23.08.2016

Replaced version: -, issued: -

Region: GB

<b>Decomposition point / decomposition range</b>			
Value		650	°C
<b>Flash point</b>			
Not applicable			
<b>Auto-ignition temperature</b>			
Value		472	°C
<b>Oxidising properties</b>			
No data available			
<b>Explosive properties</b>			
No data available			
<b>Flammability (solid, gas)</b>			
No data available			
<b>Lower flammability or explosive limits</b>			
Value		1.7	% vol
<b>Upper flammability or explosive limits</b>			
Value		12.5	% vol
<b>Vapour pressure</b>			
Value		933.25	kPa
Reference temperature		25	°C
<b>Vapour density</b>			
Value		1.56	
Reference temperature		0	°C
<b>Evaporation rate</b>			
No data available			
<b>Relative density</b>			
Value		0.5853	
<b>Density</b>			
No data available			
<b>Solubility in water</b>			
Value		75	mg/l
<b>Solubility(ies)</b>			
No data available			
<b>Partition coefficient: n-octanol/water</b>			
No	Substance name	CAS no.	EC no.
1	propane	74-98-6	200-827-9
log Pow			2.36
Source		Manufacturer	
<b>Viscosity</b>			
Value		0.08	mPa*s
Reference temperature		17.9	°C

9.2 Other information

<b>Other information</b>	
Critical Temp.: 96,7 °C	

Trade name: CARE 40

Current version : 1.0.0, issued: 23.08.2016

Replaced version: -, issued: -

Region: GB

**SECTION 10: Stability and reactivity**

**10.1 Reactivity**

No data available.

**10.2 Chemical stability**

Stable under normal conditions of use.

**10.3 Possibility of hazardous reactions**

Vapours may form an explosive mixture with air.

**10.4 Conditions to avoid**

Heat, naked flames or other ignition sources, electrostatic charge and discharge, formation of vapours/aerosols.

**10.5 Incompatible materials**

Oxidizing agents; Formation of explosive gas/air mixtures.

**10.6 Hazardous decomposition products**

None, if handled according to intended use.

**SECTION 11: Toxicological information**

**11.1 Information on toxicological effects**

<b>Acute oral toxicity</b>
No data available
<b>Acute dermal toxicity</b>
No data available
<b>Acute inhalational toxicity</b>
No data available
<b>Skin corrosion/irritation</b>
No data available
<b>Serious eye damage/irritation</b>
No data available
<b>Respiratory or skin sensitisation</b>
No data available
<b>Germ cell mutagenicity</b>
No data available
<b>Reproduction toxicity</b>
No data available
<b>Carcinogenicity</b>
No data available
<b>STOT-single exposure</b>
No data available
<b>STOT-repeated exposure</b>
No data available
<b>Aspiration hazard</b>
No data available

EC safety data sheet

Trade name: CARE 40

Current version : 1.0.0, issued: 23.08.2016

Replaced version: -, issued: -

Region: GB

**SECTION 12: Ecological information**

**12.1 Toxicity**

Toxicity to fish (acute)			
No	Substance name	CAS no.	EC no.
1	propane	74-98-6	200-827-9
LC50		49.9	mg/l
Duration of exposure		96	h
Species		fish	
Source		Manufacturer	

Toxicity to fish (chronic)			
No data available			

Toxicity to Daphnia (acute)			
No	Substance name	CAS no.	EC no.
1	propane	74-98-6	200-827-9
EC50		27.1	mg/l
Duration of exposure		48	h
Species		Daphnia magna	
Source		Manufacturer	

Toxicity to Daphnia (chronic)			
No data available			

Toxicity to algae (acute)			
No	Substance name	CAS no.	EC no.
1	propane	74-98-6	200-827-9
EC50		11.9	mg/l
Duration of exposure		72	h
Species		Algae	
Source		Manufacturer	

Toxicity to algae (chronic)			
No data available			

Bacteria toxicity			
No data available			

**12.2 Persistence and degradability**

No data available.

**12.3 Bioaccumulative potential**

Partition coefficient: n-octanol/water			
No	Substance name	CAS no.	EC no.
1	propane	74-98-6	200-827-9
log Pow		2.36	
Source		Manufacturer	

**12.4 Mobility in soil**

No data available.

**12.5 Results of PBT and vPvB assessment**

Results of PBT and vPvB assessment	
PBT assessment	The product is not considered to be a PBT.
vPvB assessment	The product is not considered to be a vPvB.

**12.6 Other adverse effects**

No data available.

**12.7 Other information**

Other information
Do not allow to enter soil, waterways or waste water canal.

**SECTION 13: Disposal considerations**

**13.1 Waste treatment methods**

**Product**

Waste code 16 05 04\* gases in pressure containers (including halons) containing hazardous substances

The listed waste code numbers, according to the European Waste Catalogue, are to be understood as a recommendation. A final decision must be made in agreement with the regional waste disposal company. dispose of in accordance with local regulation.

Refer to the EIGA code of practice (Doc.30 "Disposal of Gases"; <http://www.eiga.org>).

**Packaging**

Residuals must be removed from packaging and when emptied completely disposed of in accordance with the regulations for waste removal. Incompletely emptied packaging must be disposed of in the form of disposal specified by the regional disposer.

**SECTION 14: Transport information**

**14.1 Transport ADR/RID/ADN**

Class 2  
 Classification code 2F  
 Hazard identification no. 23  
 UN number UN1978  
 Technical name PROPANE  
 Tunnel restriction code B/D  
 Label 2.1

**14.2 Transport IMDG**

Class 2.1  
 UN number UN1978  
 Proper shipping name PROPANE  
 EmS F-D+S-U  
 Label 2.1

**14.3 Transport ICAO-TI / IATA**

Class 2.1  
 UN number UN1978  
 Proper shipping name Propane  
 Label 2.1  
 Remarks Passenger aircraft: forbidden.

**14.4 Other information**

No data available.

**14.5 Environmental hazards**

Information on environmental hazards, if relevant, please see 14.1 - 14.3.

**14.6 Special precautions for user**

No data available.

**14.7 Transport in bulk according to Annex II of Marpol and the IBC Code**

Not relevant



EC safety data sheet

Trade name: CARE 40

Current version : 1.0.0, issued: 23.08.2016

Replaced version: -, issued: -

Region: GB

**SECTION 15: Regulatory information**

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

<b>Regulation (EC) No 1907/2006 (REACH) Annex XIV (List of substances subject to authorisation)</b>	
In accordance with the Reach regulation (EC) 1907/2006, the product does not contain any substances that are considered as subject to listing in annex XIV, inventory of substances requiring authorisation.	

<b>REACH candidate list of substances of very high concern (SVHC) for authorisation</b>	
In accordance with article 57 and article 59 of the Reach regulation (EC) 1907/2006, this substance is not considered as subject to listing in annex XIV, inventory of substances requiring authorisation ("Authorization list").	

<b>Regulation (EC) No 1907/2006 (REACH) Annex XVII: RESTRICTIONS ON THE MANUFACTURE, PLACING ON THE MARKET AND USE OF CERTAIN DANGEROUS SUBSTANCES, PREPARATIONS AND ARTICLES</b>	
The product is considered being subject to REACH regulation (EC) 1907/2006 annexe XVII.	No 40

<b>Directive 2012/18/EU on the control of major-accident hazards involving dangerous substances</b>	
This product is subject to Part I of Annex I, risk category:	P2

**15.2 Chemical safety assessment**

For this substance a chemical safety assessment has been carried out.

**SECTION 16: Other information**

**Sources of key data used to compile the data sheet:**

Regulation (EC) No 1907/2006 (REACH), 1272/2008 (CLP) as amended in each case.

EC Directives 2000/39/EC, 2006/15/EC, 2009/161/EU

National Threshold Limit Values of the corresponding countries as amended in each case.

Transport regulations according to ADR, RID, IMDG, IATA as amended in each case.

The data sources used to determine physical, toxic and ecotoxic data, are indicated directly in the corresponding chapter.

**Department issuing safety data sheet**

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This information is based on our present knowledge and experience.

The safety data sheet describes products with a view to safety requirements.

It does not however, constitute a guarantee for any specific product properties and shall not establish a legally valid contractual relationship.

Alterations/supplements:

Alterations to the previous edition are marked in the left-hand margin.

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