

Safety Data Sheet

Trade name: CARE 40

Current version : 1.0.0, issued: 13.01.2023

Replaced version: -, issued: -

Region: USA

SECTION 1: Identification

1.1 Product identifier

Trade name

CARE 40

1.2 Recommended use of the chemical and restrictions on use

Recommended use of the chemical and restrictions on use

Refrigerant for professional use in ultra-low temperature freezers

Restrictions on use

No data available.

1.3 Details of the supplier of the safety data sheet

Address

Eppendorf North America, Inc.
175 Freshwater Blvd

Enfield, CT 06082
United States of America

Telephone no. +1 800 645 3050

Fax no. +1 516 334 7506

Information provided by / telephone

email: certificates@eppendorf,.com

Supplier

Address

Eppendorf SE
Barkhausenweg 1
D-22339 Hamburg
Germany

1.4 Emergency phone number

For medical and spill advice:

Phone: 800-451-8346 (Verisk 3E; client ID number: 12919)

SECTION 2: Hazard(s) identification

2.1 Classification of the chemical

Classification of the chemical in accordance with paragraph (d) of 29 CFR § 1910.1200 "Hazard Communication"

Flammable Gases - Category 1

Gases under Pressure - Compressed gas

2.2 Label elements

Pictogram(s)



Signal word

Danger

Hazard Statement(s)

Physical hazards

Extremely flammable gas

Contains gas under pressure; may explode if heated

Precautionary Statement(s)

Prevention

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

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| | |
|----------|---|
| Response | Leaking gas fire: Do not extinguish, unless leak can be stopped safely. Eliminate all ignition sources if safe to do so. |
| Storage | Store in a well-ventilated place. Protect from sunlight. Store in a well-ventilated place. |

2.3 Labelling information

No data available

2.4 Hazards not otherwise classified (HNOC)

No data available

SECTION 3: Composition / information on ingredients

3.1 Substances

Chemical characterization

Substance name propane

Identification number(s)

CAS no. 74-98-6

3.2 Mixtures

Not applicable. The product is not a mixture.

SECTION 4: First-aid measures

4.1 Description of necessary 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. Take for medical treatment.

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).

After ingestion

Seek medical advice.

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: Fire-fighting measures

5.1 Extinguishing media

Suitable extinguishing media

Foam; Water mist; Extinguishing powder; Carbon dioxide

Unsuitable extinguishing media

Full water jet

5.2 Specific hazards arising from the chemical

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 Special protective equipment and precautions for fire-fighters

As in any fire, wear self-contained breathing apparatus (MSHA/ NIOSH approved or equivalent) and full protective gear. Cool endangered containers with water spray jet.

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SECTION 6: Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures

For non-emergency personnel

Close leaks. Keep away from ignition sources. 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 Methods and materials for containment and cleaning up

Allow to evaporate.

SECTION 7: Handling and storage

7.1 Precautions for safe handling

Precautions for 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).

Incompatible products

Do not store together with oxidizing agents.

SECTION 8: Exposure controls / personal protection

8.1 Control parameters

Occupational exposure limit(s)

| No | Substance name | CAS no. |
|--|----------------|--|
| 1 | propane | 74-98-6 |
| ACGIH Threshold Limit Values | | |
| | Propane | |
| | TWA | (D, EX) |
| | Remarks | Simple asphyxiant (D); Explosion hazard (EX); see Appendix F: Minimal Oxygen Content |
| OSHA Permissible Exposure Limits (PELS) | | |
| | Propane | |
| | TWA | 1800 mg/m ³ 1000 ppm |

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 PEL (=Permissible Exposure Limit), suitable respiratory protection must be worn.

Individual protection measures, such as 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

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Tightly fitting safety glasses

Hand protection

Sufficient protection is given wearing suitable protective gloves in the event of risk of skin contact with the product. Before use, the protective glove 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 protection measures

Normal chemical work clothing.

SECTION 9: Physical and chemical properties

| | |
|--|------------|
| Form/Color | |
| liquified gas | |
| colorless | |
| Odor | |
| odorless | |
| Odor threshold | |
| No data available | |
| pH value | |
| Not applicable | |
| Boiling point / boiling range | |
| Value | -42.1 °C |
| Melting point / melting range | |
| Value | -187.6 °C |
| Decomposition point / decomposition range | |
| Value | 650 °C |
| Flash point | |
| Not applicable | |
| Auto-ignition temperature | |
| Value | 472 °C |
| Oxidising properties | |
| No data available | |
| Explosive properties | |
| No data available | |
| Flammability | |
| No data available | |
| Lower flammability or explosive limits | |
| Value | 1.7 % vol |
| Upper flammability or explosive limits | |
| Value | 12.5 % vol |
| Vapor pressure | |
| Value | 933.25 kPa |
| Reference temperature | 25 °C |
| Vapor density | |
| Value | 1.56 |
| Reference temperature | 0 °C |
| Evaporation rate | |
| No data available | |
| Relative density | |

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| | |
|---|------------|
| Value | 0.5853 |
| Density | |
| No data available | |
| Solubility in water | |
| Value | 75 mg/l |
| Solubility(ies) | |
| No data available | |
| Partition coefficient: n-octanol/water | |
| No data available | |
| Viscosity | |
| Value | 0.08 mPa*s |
| Reference temperature | 17.9 °C |
| Other information | |
| Other information | |
| Critical Temp.: 96,7 °C | |

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

Information on toxicological effects

| |
|--|
| Acute oral toxicity |
| No data available |
| Acute dermal toxicity |
| No data available |
| Acute inhalational toxicity |
| No data available |
| Skin corrosion/irritation |
| No data available |
| Serious eye damage/irritation |
| No data available |
| Respiratory or skin sensitisation |
| No data available |
| Germ cell mutagenicity |
| No data available |

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Reproduction toxicity

No data available

Carcinogenicity

No data available

NTP Report on Carcinogens (RoC)

The substance is not listed "known" (to be a human carcinogen) or "RAHC" (reasonably anticipated to be a human carcinogen).

OSHA Standards listing cancer as a health effect (Table VII.6.2)

The substance is not considered being a "carcinogen".

IARC Monographs on the Evaluation of Carcinogenic Risks to Humans

The substance is not classified by the IARC Monographs.

STOT - single exposure

No data available

STOT - repeated exposure

No data available

Aspiration hazard

No data available

SECTION 12: Ecological information

12.1 Toxicity

Toxicity to fish (acute)

No data available

Toxicity to fish (chronic)

No data available

Toxicity to Daphnia (acute)

No data available

Toxicity to Daphnia (chronic)

No data available

Toxicity to algae (acute)

No data available

Toxicity to algae (chronic)

No data available

12.2 Persistence and degradability

No data available.

12.3 Bioaccumulative potential

No data available.

12.4 Mobility in soil

No data available.

12.5 Other adverse effects

No data available.

12.6 Other information

Other information

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

SECTION 13: Disposal considerations

13.1 Disposal considerations

Product

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Dispose in accordance with federal, state and local regulations. 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 accordance with federal, state and local regulations.

SECTION 14: Transport information

14.1 US DOT (Department of Transportation)

| | |
|-------------------------|---------|
| Transport hazard class | 2.1 |
| UN/NA number | UN1978 |
| UN proper shipping name | Propane |
| Label code(s) | 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, pls. 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 73/78 and the IBC Code

Not relevant

SECTION 15: Regulatory information

15.1 US Federal Regulations

Toxic Substances Control Act (TSCA)

According to the data available and/or specifications supplied by upstream suppliers, all components of this product are on the TSCA Inventory or are exempted from notification requirements.

CERCLA (Comprehensive Environmental Response, Compensation and Liability Act)

The substance is not subject to Table 302.4 "List of Hazardous Substances and Reportable Quantities".

Clean Air Act (CAA): Hazardous Air Pollutants (HAPS)

The substance is not a "Hazardous Air Pollutant".

Clean Water Act (CWA) Section 307 (Toxic Pollutants) and Section 311 (Hazardous Substances)

The substance is not a "Hazardous Substance".

EPCRA SARA Section 313, Toxic Chemical Release Inventory

The substance is not subject to "SARA Reporting".

Emergency Planning & Community Right-to-Know Act (EPCRA) - Sections 302 and 304

The substance is not subject to reporting requirements.

Clean Air Act (CAA) - Section 602 Ozone depleting substances

The substance is not considered being an ozone depleting substance.

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15.2 US State Regulations

| Pennsylvania State Right to Know Hazardous Substance List | | |
|--|----------------|---------|
| The substance is considered to be a "Hazardous Substance". | | |
| No | Substance name | CAS no. |
| 1 | propane | 74-98-6 |

| New Jersey State Right to Know Hazardous Substance List | | |
|--|----------------|---------|
| The substance is considered to be a "Hazardous Substance". | | |
| No | Substance name | CAS no. |
| 1 | propane | 74-98-6 |

| Massachusetts State Right to Know Hazardous Substance List | | |
|--|----------------|---------|
| The substance is considered to be a "Hazardous Substance". | | |
| No | Substance name | CAS no. |
| 1 | propane | 74-98-6 |

| California Code of Regulations Title 8 §339, Hazardous Substances List | | |
|--|--|--|
| The substance is not a "Hazardous Substance". | | |

| Right to Know - California State - Proposition 65 | | |
|---|--|--|
| The substance is not a "Hazardous Substance". | | |

SECTION 16: Other information, including date of preparation or last revision

16.1 Other information

No data available.

16.2 Date of preparation/revision of the SDS

| | | |
|------------------|-------|------------|
| Current version | 1.0.0 | 13.01.2023 |
| Replaced version | - | - |

16.3 Department issuing safety data sheet

UMCO GmbH
Georg-Wilhelm-Str. 187, D-21107 Hamburg, Germany
Tel.: +49 40 / 555 546 300 Fax: +49 40 / 555 546 357 e-mail: umco@umco.de

16.4 Conclusions

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.

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Prod-ID 779095

16.5 Key / Legend

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5E - indicates a substance that is the subject of a TSCA section 5(e) order
5F - indicates a substance that is the subject of a TSCA section 5(f) rule
ACGIH - American Conference of Governmental Industrial Hygienists
ATE – Acute Toxicity Estimate
BOD - Biochemical Oxygen Demand
CA/MA/MN/NJ/PA - California/Massachusetts/Minnesota/New Jersey/Pennsylvania*;
CAS - Chemical Abstracts Service
CERCLA - Comprehensive Environmental Response, Compensation, and Liability Act
CFR - Code of Federal Regulations (US)
CLP - Classification, Labelling, and Packaging
DOT - Department of Transportation Commission
ECHA – European Chemicals Agency
EC / EL – Effective Concentration / Effective Loading
EPA - Environmental Protection Agency
IARC - International Agency for Research on Cancer
IATA - International Air Transport Association
IBC – Intermediate Bulk Container
ICAO - International Civil Aviation Organization
IDL - Ingredient Disclosure List
IDLH - Immediately Dangerous to Life and Health
IMDG - International Maritime Dangerous Goods
IUCRID - International Uniform Chemical Information Database
Kow - Octanol/water partition coefficient
LD/LC - Lethal Dose/ Lethal Concentration
MARPOL – Marine Pollution
MEL - Maximum Exposure Limits
NFPA - National Fire Protection Agency
NIOSH - National Institute for Occupational Safety and Health
NJTSR - New Jersey Trade Secret Registry
NOEL/NOEC – No Observed Effect Level / No Observed Effect Concentration
NTP - National Toxicology Program
OSHA - Occupational Safety and Health Administration
PEL- Permissible Exposure Limit
PMN - indicates a commenced Pre Manufacture Notice substance
RCRA - Resource Conservation and Recovery Act
S - indicates a substance that is identified in a final Significant New Use Rule
SARA - Superfund Amendments and Reauthorization Act
SP - indicates a substance that is identified in a proposed Significant New Use Rule
STEL - Short-term Exposure Limit
STOT – Specific Target Organ Toxicity
T - indicates a substance that is the subject of a final TSCA section 4 test rule or order
TDG - Transportation of Dangerous Goods
TLV - Threshold Limit Value
TP - indicates a substance that is the subject of a proposed TSCA section 4 test rule or order
TSCA - Toxic Substances Control Act
TWA - Time Weighted Average
UN/NA - United Nations /North American
US - United States
VLE - Exposure Limit Value (Mexico)
VOC – Volatile Organic Compounds
XU - indicates a substance exempt from reporting under the Chemical Data Reporting Rule