

Trade name: Multigas 300**Product no.:** 035510, 035510-A, 035510-B**Current version :** 1.0.3, issued: 30.11.2022**Replaced version:** 1.0.1, issued: 01.07.2019**Region:** GB**SECTION 1: Identification of the substance/mixture and of the company/undertaking****1.1 Product identifier****Trade name****Multigas 300**

Substance name Petroleum gas, Petroleum gases, liquefied
REACH registration no. 01-2119486557-22

Identification numbers

CAS no. 68476-85-7
EC no. 270-704-2
Index no. 649-202-00-6

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

Fuel gas

Uses advised against

No data available.

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

ROTHENBERGER Werkzeuge GmbH
Industriestraße 7
65779 Kelkheim

Telephone no. +49 (0) 61 95 / 800 - 1
Fax no. +49 (0) 6195 / 800 - 3500
e-mail info@rothenberger.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**

68476-85-7 (Petroleum gas, Petroleum gases, liquefied)

Hazard pictograms

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GHS02

GHS04

Signal word

Danger

Hazard statement(s)

H220

Extremely flammable gas.

H280

Contains gas under pressure; may explode if heated.

Precautionary statement(s)

P101

If medical advice is needed, have product container or label at hand.

P102

Keep out of reach of children.

P103

Read label before use.

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

In case of leakage, eliminate all ignition sources.

P410+P403

Protect from sunlight. Store in a well-ventilated place.

P501

Dispose of contents/container to a facility in accordance with local/regional/national/international regulations.

Labelling information

It is allowed to use the reduced labelling for gas containers for propane, butane or liquefied petroleum gas (LPG) based on Annex I, point 1.3.2 (EC Regulation 1272/2008 Annex I, 1.3.4).

2.3 Other hazards

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 Petroleum gas, Petroleum gases, liquefied

Identification numbers

CAS no. 68476-85-7

EC no. 270-704-2

Index no. 649-202-00-6

Other information

Note	Specific concentration limits	M-factor (acute)	M-factor (chronic)
K	-	-	-

Full text for the notes: pls. see section 16 "Notes relating to the identification, classification and labelling of substances ((EC) No 1272/2008, Annex VI)".

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**

Remove affected person from danger area, lay him down. If the patient is likely to become unconscious, place and transport in stable sideways position. In case of persisting adverse effects, consult a physician.

After inhalation

Ensure supply of fresh air. If breathing is irregular or stopped, administer artificial respiration.

After skin contact

In case of contact with skin wash off with water. In case of frostbite, rinse with plenty of water. Do not remove clothing. Seek medical attention.

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Remove contact lenses. Rinse eye thoroughly under running water keeping eyelids wide open and protecting the unaffected eye (at least 10 to 15 minutes). Get immediate ophthalmic treatment.

After ingestion

Get medical attention if pain still persists.

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

Frostbite; CNS depression; Light-headedness; Dizziness; Disturbance of vision

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**

Extinguishing powder; Carbon dioxide

Unsuitable extinguishing media

High power water jet

5.2 Special hazards arising from the substance or mixture

In the event of fire, the following can be released: Carbon monoxide and carbon dioxide; May explode if exposed to heat. Formation of explosive mixtures with air is possible.

5.3 Advice for firefighters

Use self-contained breathing apparatus. Wear protective clothing. Containers close to fire should be transferred to a safe place. Cool closed containers exposed to fire with water. Pressure increase, bursting and explosion hazard during heating. Do not inhale explosion and/or combustion byproducts. Do not allow run-off from fire fighting to enter drains or water courses.

SECTION 6: Accidental release measures**6.1 Personal precautions, protective equipment and emergency procedures****For non-emergency personnel**

Refer to protective measures listed in sections 7 and 8. Ensure adequate ventilation. Keep away from ignition sources. Evacuate all unprotected personnel from the danger zone. Use personal protective clothing.

For emergency responders

Personal protective equipment (PPE) - see section 8.

6.2 Environmental precautions

Avoid release in the environment. Do not discharge into the drains/surface waters/groundwater.

6.3 Methods and material for containment and cleaning up

Ensure adequate ventilation. Allow to vaporise. Contain and collect spillage with non-combustible absorbent materials, e.g. sand, earth, vermiculite, diatomaceous earth and place in container for disposal according to local regulations (see section 13).

6.4 Reference to other sections

Information regarding safe handling, see section 7. Information regarding personal protective measures, see section 8. Information regarding waste disposal, see section 13.

SECTION 7: Handling and storage**7.1 Precautions for safe handling****Advice on safe handling**

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Risks inherent to handling the product must be minimised by applying the appropriate protective and preventive measures. Working processes should - so far as possible, according to the state of the art - be designed to rule out bodily contact or the release of hazardous substances. Provide good ventilation at the work area (local exhaust ventilation, if necessary). Open and handle container with care. Pressurized container: protect from sunlight and do not expose to temperatures exceeding 50 °C. Do not pierce or burn, even after use. Handle with care - avoid bumps, friction and impact.

General protective and hygiene measures

Wash hands before breaks and after work. Do not inhale gases. Do not eat, drink or smoke during work time. Keep away from food, drink and animal feeding stuffs. Avoid contact with eyes and skin.

Advice on protection against fire and explosion

Vapours can form an explosive mixture with air. Isolate from sources of heat, sparks and open flame. Take precautionary measures against electrostatic loading (earthing necessary during loading operations). Use explosion-proof equipment/fittings and non-sparking tools. Electrical equipment should be protected to the appropriate standard.

7.2 Conditions for safe storage, including any incompatibilities**Technical measures and storage conditions**

Keep container tightly closed in a cool, well-ventilated place, open and handle carefully. Protect from heat and direct sunlight. Protect from temperatures over 50°C.

Recommended storage temperature

Value < 50 °C

Requirements for storage rooms and vessels

Containers which are opened must be carefully closed and kept upright to prevent leakage. Always keep in containers of same material as the original.

Incompatible products

Substances to be avoided, see section 10.

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	Petroleum gas, Petroleum gases, liquefied	68476-85-7	270-704-2
List of approved workplace exposure limits (WELs) / EH40			
Liquefied petroleum gas			
	WEL short-term (15 min reference period)	2180 mg/m ³	1250 ppm
	WEL long-term (8-hr TWA reference period)	1750 mg/m ³	1000 ppm
	Comments	Carc (only applies if LPG contains more than 0.1% of buta-1,3-diene)	

DNEL, DMEL and PNEC values**DNEL values (worker)**

DNEL values (worker)				
No	Substance name			CAS / EC no
	Route of exposure	Exposure time	Effect	Value
1	Petroleum gas, Petroleum gases, liquefied			68476-85-7 270-704-2
	dermal	Long term (chronic)	systemic	23.4 mg/kg/day
	inhalative	Long term (chronic)	systemic	2.21 mg/m³
	Comments: The value is an Derived Minimum Effect Level (DMEL) and not a DNEL. A safe no effect level cannot be derived for this endpoint.			

8.2 Exposure controls**Appropriate engineering controls**

Ensure adequate ventilation, local exhaust at the work station if necessary.

Personal protective equipment

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If workplace exposure limits are exceeded, a respiration protection approved for this particular job must be worn. In case of aerosol and mist formation, take appropriate measures for breathing protection in the event workplace threshold values are not specified.

Eye / face protection

Tightly fitting safety glasses (EN 166).

Hand protection

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

Chemical-resistant work clothes.

Environmental exposure controls

No data available.

SECTION 9: Physical and chemical properties**9.1 Information on basic physical and chemical properties**

State of aggregation	
gas	
Form	
Compressed liquified gas	
Colour	
colourless	
Odour	
characteristic	
Odour threshold	
Value	2.9 - 14.6 mg/m ³
Reference substance	n-Butan
Source	supplier
pH value	
No data available	
Boiling point / boiling range	
Value	-5 °C
Source	supplier
Melting point/freezing point	
Value	< 130 °C
Source	supplier
Decomposition temperature	
No data available	
Flash point	
Value	-74 °C
Source	supplier
Ignition temperature	
No data available	
Auto-ignition temperature	
Value	405 °C
Source	supplier
Oxidising properties	
not oxidizing	

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The product is not explosive. Formation of explosive/highly flammable air-vapour mixtures is possible during/after use.

Flammability

The product is non-flammable.

Source supplier

Lower explosion limit

Value 1.8 % vol

Reference substance n-Butan

Source supplier

Value 1.8 % vol

Reference substance isobutane

Source supplier

Value 2.2 % vol

Reference substance propane

Source supplier

Upper explosion limit

Value 8.4 % vol

Reference substance n-Butan

Source supplier

Value 9.8 % vol

Reference substance isobutane

Source supplier

Value 10 % vol

Reference substance propane

Source supplier

Vapour pressure

Value 1820 mmHg

Reference temperature 25 °C

Reference substance n-Butan

Source supplier

Value 2611 mmHg

Reference temperature 25 °C

Reference substance isobutane

Source supplier

Value 7150 mmHg

Reference temperature 25 °C

Reference substance propane

Source supplier

Relative vapour density

Value 2.07

Reference substance n-Butan

Source supplier

Comments Air = 1

Value 2.07

Reference substance isobutane

Source supplier

Comments Air = 1

Value 1.56

Reference substance propane

Source supplier

Comments Air = 1

Relative density

Value 0.6

Reference substance n-Butan

Source supplier

Comments Water=1

Value 0.6

Reference substance isobutane

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Source	supplier
Comments	Water=1
Value	0.5
Reference substance	propane
Source	supplier
Comments	Water=1

Density

No data available

Solubility in water

Value	61.2	mg/l
Reference temperature	25	°C
Reference substance	n-Butan	
Source	supplier	
Value	48.9	mg/l
Reference temperature	25	°C
Reference substance	isobutane	
Source	supplier	
Value	62.4	ppm
Reference temperature	25	°C
Reference substance	propane	
Source	supplier	

Solubility

No data available

Partition coefficient n-octanol/water (log value)

No data available

Kinematic viscosity

Value	0.30	cSt
Reference temperature	20	°C
Reference substance	n-Butan	
Source	supplier	
Comments	Liquid	
Value	0.20	cSt
Reference temperature	20	°C
Reference substance	propane	
Source	supplier	
Comments	Liquid	

Particle characteristics**9.2 Other information****Other information**

No data available.

SECTION 10: Stability and reactivity**10.1 Reactivity**

No data available.

10.2 Chemical stability

Stable under recommended storage and handling conditions (See section 7).

10.3 Possibility of hazardous reactions

Risk of formation of explosive gas mixtures in air. Exothermic reactions are possible in the event of contact with incompatible substances.

10.4 Conditions to avoid

Temperatures > 50°C. Heat, naked flames and other ignition sources.

10.5 Incompatible materials

Oxidizing agents; Halogens

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None, if handled according to intended use.

SECTION 11: Toxicological information**11.1 Information on hazard classes as defined in Regulation (EC) No 1272/2008****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

Reproduction toxicity

No data available

Carcinogenicity

No data available

STOT - single exposure

No data available

STOT - repeated exposure

No data available

Aspiration hazard

No data available

11.2 Information on other hazards**Endocrine disrupting properties**

No data available.

Other information

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

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No data available

Bacteria toxicity

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 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 Endocrine disrupting properties

No data available.

12.7 Other adverse effects

No data available.

SECTION 13: Disposal considerations**13.1 Waste treatment methods****Product**

dispose of in accordance with local regulation.

Allocation of a waste code number, according to the European Waste Catalogue, should be carried out in agreement with the regional waste disposal company.

Packaging

Compressed gas packaging under pressure. Do not open by force. Do not heat above 50°C. Dispose of compressed gas packagings only if completely discharged. Do not burn empty compressed gas packagings. Do not pierce, cut or weld uncleaned containers.

SECTION 14: Transport information**14.1 Transport ADR/RID/ADN**

Class	2
Classification code	5F
UN number	UN2037
Proper shipping name	RECEPTACLES, SMALL, CONTAINING GAS
Tunnel restriction code	D
Label	2.1

14.2 Transport IMDG

Class	2
UN number	UN2037
Proper shipping name	RECEPTACLES, SMALL, CONTAINING GAS
EmS	F-D, S-U
Label	2.1

14.3 Transport ICAO-TI / IATA

Class	2.1
UN number	UN2037
Proper shipping name	Receptacles, small, containing gas
Label	2.1

14.4 Other information

No data available.

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

14.6 Special precautions for user

To be transported always in closed, upright and safe containers. Make sure that persons handling these containers are aware of the rules of conduct in case of incident or spillage.

14.7 Maritime transport in bulk according to IMO instruments

Not relevant

SECTION 15: Regulatory information**15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture****EU regulations****Regulation (EC) No 1907/2006 (REACH) Annex XIV (List of substances subject to authorisation)**

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.

REACH candidate list of substances of very high concern (SVHC) for authorisation

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").

Regulation (EC) No 1907/2006 (REACH) Annex XVII: RESTRICTIONS ON THE MANUFACTURE, PLACING ON THE MARKET AND USE OF CERTAIN DANGEROUS SUBSTANCES, MIXTURES AND ARTICLES

The product is considered being subject to REACH regulation (EC) 1907/2006 annex XVII. No 40

The substance is considered being subject to REACH regulation (EC) 1907/2006 annex XVII.

No	Substance name	CAS no.	EC no.	No
1	Petroleum gas, Petroleum gases, liquefied	68476-85-7	270-704-2	75

Directive 2012/18/EU on the control of major-accident hazards involving dangerous substances

This product is subject to Part I of Annex I, risk category: P2

Other regulations

Adhere to the national sanitary and occupational safety regulations when using this product.

15.2 Chemical safety assessment

A chemical safety assessment has not been carried out for this mixture.

SECTION 16: Other information**Further information**

Alterations/supplements:

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

Sources of key data used to compile the data sheet:

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

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

Directives 2000/39/EC, 2006/15/EC, 2009/161/EU, (EU) 2017/164.

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

Notes relating to the identification, classification and labelling of substances and mixtures ((EC) No 1272/2008, Annex VI)

K

The harmonised classification as a carcinogen or mutagen applies unless it can be shown that the substance contains less than 0,1 % w/w 1,3- butadiene (Einecs No 203-450-8), in which case a classification in accordance with Title II of this Regulation shall be performed also for those hazard classes. Where the substance is not classified as a carcinogen or mutagen, at least the precautionary statements (P102-)P210-P403 shall apply.

Creation of the 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.

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