

Trade name: Multigas 300

Product no.: 035510, 035510-A, 035510-B

Current version : 1.0.1, issued: 01.07.2019

Replaced version: 1.0.0, issued: 05.06.2019

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 (Gif tinformat ionszentrum 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

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)".

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)

Trade name: Multigas 300**Product no.:** 035510, 035510-A, 035510-B**Current version :** 1.0.1, issued: 01.07.2019**Replaced version:** 1.0.0, issued: 05.06.2019**Region:** GB**Hazard pictograms**

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

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.

After eye contact

Trade name: Multigas 300

Product no.: 035510, 035510-A, 035510-B

Current version : 1.0.1, issued: 01.07.2019

Replaced version: 1.0.0, issued: 05.06.2019

Region: GB

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; Dizziness; 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 gases. 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 sources of ignition. 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 chapter 7. Information regarding personal protective measures, see chapter 8. Information regarding waste disposal, see chapter 13.

SECTION 7: Handling and storage

7.1 Precautions for safe handling

Advice on safe handling

Product inherent handling risks must be minimised taking the appropriate measures for protection and preventive actions. The working process should be designed to rule out the release of hazardous substances or skin contact as far as possible by the state of the art. 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.

Trade name: Multigas 300

Product no.: 035510, 035510-A, 035510-B

Current version : 1.0.1, issued: 01.07.2019

Replaced version: 1.0.0, issued: 05.06.2019

Region: GB

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 one.

Incompatible products

Substances to be avoided, pls. See chapter 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)**

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/m ³
	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**Respiratory protection**

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).

Trade name: Multigas 300

Product no.: 035510, 035510-A, 035510-B

Current version : 1.0.1, issued: 01.07.2019

Replaced version: 1.0.0, issued: 05.06.2019

Region: GB

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**

Form/Colour	
Compressed liquified gas	
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 / melting range	
Value	< 130 °C
Source	supplier
Decomposition point / decomposition range	
No data available	
Flash point	
Value	-74 °C
Source	supplier
Auto-ignition temperature	
Value	405 °C
Source	supplier
Oxidising properties	
not oxidizing	
Explosive properties	
This product is not explosive. In and after use danger of production of inflammable compounds.	
Flammability (solid, gas)	
The product is non-flammable.	
Source	supplier
Lower flammability or explosive limits	
Value	1.8 % vol
Reference substance	n-Butan
Source	supplier
Value	1.8 % vol
Reference substance	isobutane
Source	supplier
Value	2.2 % vol

Trade name: Multigas 300

Product no.: 035510, 035510-A, 035510-B

Current version : 1.0.1, issued: 01.07.2019

Replaced version: 1.0.0, issued: 05.06.2019

Region: GB

Reference substance Source	propane supplier
-------------------------------	---------------------

Upper flammability or explosive limits

Value	8.4	% vol
Reference substance Source	n-Butan supplier	
Value	9.8	% vol
Reference substance Source	isobutane supplier	
Value	10	% vol
Reference substance Source	propane supplier	

Vapour pressure

Value	1820	mmHg
Reference temperature	25	°C
Reference substance Source	n-Butan supplier	
Value	2611	mmHg
Reference temperature	25	°C
Reference substance Source	isobutane supplier	
Value	7150	mmHg
Reference temperature	25	°C
Reference substance Source	propane supplier	

Vapour density

Value	2.07
Reference substance Source Comments	n-Butan supplier Air = 1
Value	2.07
Reference substance Source Comments	isobutane supplier Air = 1
Value	1.56
Reference substance Source Comments	propane supplier Air = 1

Evaporation rate

No data available

Relative density

Value	0.6
Reference substance Source Comments	n-Butan supplier Water=1
Value	0.6
Reference substance Source Comments	isobutane supplier Water=1
Value	0.5
Reference substance Source Comments	propane supplier Water=1

Density

No data available

Solubility in water

Value	61.2	mg/l
Reference temperature	25	°C

Trade name: Multigas 300

Product no.: 035510, 035510-A, 035510-B

Current version : 1.0.1, issued: 01.07.2019

Replaced version: 1.0.0, issued: 05.06.2019

Region: GB

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(ies)

No data available

Partition coefficient: n-octanol/water

No data available

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		

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. Exothermal 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

10.6 Hazardous decomposition products

None, if handled according to intended use.

SECTION 11: Toxicological information**11.1 Information on toxicological effects****Acute oral toxicity**

No data available

Acute dermal toxicity

No data available

Acute inhalational toxicity

No data available

Trade name: Multigas 300

Product no.: 035510, 035510-A, 035510-B

Current version : 1.0.1, issued: 01.07.2019

Replaced version: 1.0.0, issued: 05.06.2019

Region: GB

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

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
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 Other adverse effects

No data available.

Trade name: Multigas 300

Product no.: 035510, 035510-A, 035510-B

Current version : 1.0.1, issued: 01.07.2019

Replaced version: 1.0.0, issued: 05.06.2019

Region: GB

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.

14.5 Environmental hazards

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

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, PREPARATIONS AND ARTICLES

Trade name: Multigas 300

Product no.: 035510, 035510-A, 035510-B

Current version : 1.0.1, issued: 01.07.2019

Replaced version: 1.0.0, issued: 05.06.2019

Region: GB

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

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

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

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

K

The classification as a carcinogen or mutagen need not apply if it can be shown that the substance contains less than 0.1 % w/w 1,3-butadiene (EINECS No 203-450-8). If the substance is not classified as a carcinogen or mutagen, at least the precautionary statements (P102-)P210-P403 (Table 3.1) or the S-phrases (2-)9-16 (Table 3.2) should apply. This note applies only to certain complex oil-derived substances in Part 3.

Department issuing safety data sheet

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

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.

Document protected by copyright. Alterations or reproductions require the express written permission of UMCO GmbH.

Prod-ID 753788