Safety Data Sheet

According to regulation (EC) 1907/2006

MULTIGAS 300

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ROTHENBERGER Werkzeuge GmbH
Industriestr. 7
65779 Kelkheim

Tel.: + 49 (0) 6195 – 800 1
Fax: + 49 (0) 6195 – 7 44 22

Mail: zentrale@rothenberger.com
Web: www.rothenberger.com

1. Identification of the substance / preparation and of the company

Identification: **MULTIGAS 300**

Use of the substance/preparation: **Burning gas**

Company: **ROTHENBERGER Werkzeuge GmbH**
Industriestr. 7
65779 Kelkheim
Phone: + 49 (0) 6195 – 800 1

Emergency telephone: Phone: + 49 (0) 6195 – 800 1
08.00 a.m. – 05.00 p.m.

2. Hazards identification

Classification of the substance or mixture
Classification according to Regulation (EC) No 1272/2008


GHS02 flame

Flam. Gas 1 H220 Extremely flammable gas.

Classification according to Directive 67/548/EEC or Directive 1999/45/EC


F+; Extremely flammable
R12: Extremely flammable.
Information concerning particular hazards for human and environment:
The product has to be labelled due to the calculation procedure of the "General Classification guideline for preparations of the EU" in the latest valid version.
Warning! Pressurized container.
Classification system:
The classification is according to the latest editions of the EU-lists, and extended by company and literature data.

Label elements

Labelling according to EU guidelines:
The product has been classified and marked in accordance with EU Directives / Ordinance on Hazardous Materials.

Code letter and hazard designation of product:


F+ Extremely flammable

Hazard-determining components of labelling: Mixture of propane-butane

Risk phrases:
12 Extremely flammable.
Special labelling of certain preparations:
Pressurized container: Protect from direct sunlight and do not expose to temperatures exceeding 50°C. Do not puncture/pierce or incinerate, even after use. Keep container in a well-ventilated place. Keep away from sourcesof ignition-No smoking. Keep out of the reach of children.

Other hazards
Flammable liquified gas cartridge equipped with valve type 1 according EN 417. This cartridge complies with EN417. This cartridge shall only be used with propane/butane appliances suitable for valves of type 1 according EN 417. Follow the instructions for use supplied with the appliance. Changing the cartridge: perform this operation in a well ventilated area, free from ignition sources. Close the appliance valve. Remove the appliance from the cartridge. Replace the connection seal if it is damaged or lost. Avoid crossthreading.
Screw down hand tight only. WARNING: DO NOT REFILL!
Results of PBT and vPvB assessment
PBT: Not applicable.
vPvB: Not applicable.

3. Composition / information on ingredients

Chemical characterization: Mixtures
Description: Mixture: consisting of the following components.

Dangerous components:			
CAS: 106-97-8 EINECS: 203-448-7	butane	F+R12 Flam. Gas 1, H220; Press. Gas, H280	65 - 75%
CAS: 74-98-6 EINECS: 200-827-9	propane	F+R12 Flam. Gas 1, H220; Press. Gas, H280	25 - 35%
CAS: 75-28-5 EINECS: 200-857-2	isobutane	F+R12 Flam. Gas 1, H220; Press. Gas, H280	0 - 5%

Additional information: For the wording of the listed risk phrases refer to section 16.

4. First-aid measures

Description of first aid measures
General information:
Take affected persons out into the fresh air.
Do not leave affected persons unattended.
After inhalation: Supply fresh air; consult doctor in case of complaints.
After skin contact: Generally the product does not irritate the skin.
After eye contact: Rinse opened eye for several minutes under running water.
After swallowing: If symptoms persist consult doctor.
Information for doctor:
Most important symptoms and effects, both acute and delayed No further relevant information available.
Indication of any immediate medical attention and special treatment needed
No further relevant information available.

5. Fire-fighting measures

Extinguishing media
Suitable extinguishing agents:
CO2, powder or water spray. Fight larger fires with water spray or alcohol resistant foam.
For safety reasons unsuitable extinguishing agents: Water with full jet
Special hazards arising from the substance or mixture Risk of bursting in case of fire heat
Advice for firefighters
Protective equipment: Do not inhale explosion gases or combustion gases.
Additional information Cool endangered receptacles with water spray.

6. Accidental release measures

Personal precautions, protective equipment and emergency procedures
Wear protective equipment. Keep unprotected persons away.
Ensure adequate ventilation
Keep away from ignition sources.
Environmental precautions: No special measures required.
Methods and material for containment and cleaning up:
Ensure adequate ventilation.
Allow to evaporate.
Reference to other sections
See Section 7 for information on safe handling.
See Section 8 for information on personal protection equipment.
See Section 13 for disposal information.

7. Handling and storage

Handling:
Precautions for safe handling
Ensure good ventilation/exhaustion at the workplace.
Open and handle receptacle with care.
Information about fire - and explosion protection:
Keep ignition sources away - Do not smoke.
Protect against electrostatic charges.
Pressurized container: protect from sunlight and do not expose to temperatures exceeding 50 °C, i.e. electric lights. Do not pierce or burn, even after use.
Do not spray onto a naked flame or any incandescent material.
Conditions for safe storage, including any incompatibilities
Storage:
Requirements to be met by storerooms and receptacles:
Store in a cool location.
Observe official regulations on storing packagings with pressurized containers.
Information about storage in one common storage facility: Not required.
Further information about storage conditions: Protect from heat and direct sunlight.
Recommended storage temperature: 15 - 35 °C, max. 50 °C
Specific end use(s) No further relevant information available.

8. Exposure controls / personal protection

Additional information about design of technical facilities: No further data; see item 7.
Control parameters

Ingredients with limit values that require monitoring at the workplace:	
106-97-8 butane	
WEL	Short-term value: 1810 mg/m³, 750 ppm Long-term value: 1450 mg/m³, 600 ppm Carc (if more than 0.1% of buta-1.3-diene)

Additional information: The lists valid during the making were used as basis.

Exposure controls
Personal protective equipment:
General protective and hygienic measures: Do not inhale gases / fumes / aerosols.
Respiratory protection: Not necessary if room is well-ventilated.
Protection of hands:
Material of gloves Leather gloves
Penetration time of glove material > 480 min / 0,4 mm thickness
Eye protection: Not required.

9. Physical and chemical properties

Information on basic physical and chemical properties
General Information
Appearance:

Form:	Compressed liquefied gas
Colour:	Colourless
Odour:	Characteristic
Change in condition	
Melting point/Melting range:	Undetermined.
Boiling point/Boiling range:	-44°C
Flash point:	Not applicable, as aerosol.
Ignition temperature:	365°C
Self-igniting:	Product is not selfigniting.
Danger of explosion:	Risk of bursting at temperatures > 50°C. Damage of the container may lead to the formation of explosive mixtures of gas/vapors with air.
Explosion limits:	
Lower:	1.5 Vol %
Upper:	10.9 Vol %
Pressure (20°C)	5,0 - 5,6 bar
Density at 20°C:	0.55 g/cm³
Solubility in / Miscibility with water:	Insoluble.
Solvent content:	
Organic solvents:	0.0 %
VOC (EC)	100 %
	100.00 %
Other information	No further relevant information available.
Additional information	Vapors are heavier than air.

10. Stability and reactivity

Reactivity
Chemical stability
Thermal decomposition / conditions to be avoided: Risk of bursting at temperatures >50°C.
Possibility of hazardous reactions No dangerous reactions known.
Conditions to avoid No further relevant information available.
Incompatible materials: No further relevant information available.
Hazardous decomposition products: No dangerous decomposition products known.
Additional information: Stable for a storage time of min. 24 months

11. Toxicological information

Information on toxicological effects
Acute toxicity:
Primary irritant effect:
on the skin: No irritant effect.
on the eye: No irritating effect.
Sensitization: No sensitizing effects known.

12. Ecological information

Toxicity
Aquatic toxicity: No further relevant information available.
Persistence and degradability No further relevant information available.
Behaviour in environmental systems:
Bioaccumulative potential No further relevant information available.
Mobility in soil No further relevant information available.
Additional ecological information:
General notes: Generally not hazardous for water
Results of PBT and vPvB assessment
PBT: Not applicable.
vPvB: Not applicable.
Other adverse effects No further relevant information available.

13. Disposal considerations

Waste treatment methods
Recommendation
empty cans: material recycling
filled cans: remove in accordance with local regulations

European waste catalogue	
16 00 00	WASTES NOT OTHERWISE SPECIFIED IN THE LIST
16 05 00	gases in pressure containers and discarded chemicals
16 05 05	gases in pressure containers other than those mentioned in 16 05 04

Uncleaned packaging:
Recommendation: Disposal must be made according to official regulations.

14. Transport information

UN-Number
ADR, IMDG, IATA UN2037

UN proper shipping name
ADR 2037 RECEPTACLES, SMALL, CONTAINING GAS (GAS CARTRIDGES)
IMDG, IATA RECEPTACLES, SMALL, CONTAINING GAS (GAS CARTRIDGES)

Transport hazard class(es)
ADR



Class 2 5F Gases.
Label 2.1

IMDG, IATA



Class 2.1

Label 2.1
Packing group
ADR, IMDG, IATA Void

Environmental hazards:
Marine pollutant: No

Special precautions for user Warning: Gases.
Danger code (Kemler): - -
EMS Number: F-D,S-U

Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code Not applicable.

Transport/Additional information:
ADR
Limited quantities (LQ) 1L
Transport category 2
Tunnel restriction code D
Remarks: Transportation as "LIMITED QUANTITIES" (LQ2) according chapter 3.4 ADR is possible.
Marking at the box: UN 2037 (rhombe)
Entry in the in the transportation document: Transportation according chapter 3.4 ADR.

UN "Model Regulation": UN2037, RECEPTACLES, SMALL, CONTAINING GAS (GAS CARTRIDGES), 2.1

15. Regulatory information

Safety, health and environmental regulations/legislation specific for the substance or mixture
Labelling according to EU guidelines:
The product has been classified and marked in accordance with EU Directives / Ordinance on Hazardous Materials.
Code letter and hazard designation of product:


F+ Extremely flammable

Risk phrases:
12 Extremely flammable.

Special labelling of certain preparations:
Pressurized container: Protect from direct sunlight and do not expose to temperatures exceeding 50°C. Do not puncture/pierce or incinerate, even after use. Keep container in a well-ventilated place. Keep away from sourcesof ignition-No smoking. Keep out of the reach of children.

National regulations:

Information about limitation of use: Employment restrictions concerning juveniles must be observed.
Chemical safety assessment: A Chemical Safety Assessment has not been carried out.

16. Other information

This information is based on our present knowledge. However, this shall not constitute a guarantee for any specific product features and shall not establish a legally valid contractual relationship.

Relevant phrases
H220 Extremely flammable gas.

H280 Contains gas under pressure; may explode if heated.

R12 Extremely flammable.

Abbreviations and acronyms:

ADR: Accord européen sur le transport des marchandises dangereuses par Route (European Agreement concerning the International
Carriage of Dangerous Goods by Road)
RID: Règlement international concernant le transport des marchandises dangereuses par chemin de fer (Regulations Concerning the
International Transport of Dangerous Goods by Rail)
IMDG: International Maritime Code for Dangerous Goods
IATA: International Air Transport Association
ICAO: International Civil Aviation Organization
GHS: Globally Harmonized System of Classification and Labelling of Chemicals
VOC: Volatile Organic Compounds (USA, EU)

· *** Data compared to the previous version altered.**