

## Safety data sheet

according to 1907/2006/EC, Article 31

Printing date 19.11.2013

Revision: 20.08.2013

### 1 Identification of the substance/mixture and of the company/undertaking

**Product identifier****Trade name:** 35510 / 035510-A / 035510-B Multigas 300**Relevant identified uses of the substance or mixture and uses advised against:**

No further relevant information available.

**Application of the substance / the preparation:** Gas cartridge**Details of the supplier of the safety data sheet****Manufacturer/Supplier:**

ROTHENBERGER Werkzeuge GmbH

Industriestraße 7

D-65779 Kelkheim / Germany

Phone: +49 (0) 61 95 / 800 - 0

Fax: +49 (0) 6195 / 800 - 3500

Email: info@rothenberger.com

**Further information obtainable from:** ROTHENBERGER Werkzeuge GmbH**Emergency telephone number:**

Giftinformationszentrum-Nord / GIZ-Nord Poisons Centre

Telefon / Phone +49 (0) 551/19240

24h / 7d

### 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.

Press. Gas H280 Contains gas under pressure; may explode if heated.

**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:**

Vapours of the product are heavier than air and may accumulate on the ground, in mines, drains or cellars with higher concentration.

Contact with skin and inhalation of aerosols/ vapours of the preparation should be avoided.

Heightened risk of fire and danger of explosion at accumulation in lower-lying or closed rooms

**Label elements:****Labelling according to Regulation (EC) No 1272/2008:**

The product is classified and labelled according to the CLP regulation.

**Hazard pictograms:**

GHS02

**Signal word:** Danger

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**Hazard statements:**

H220 Extremely flammable gas.

H280 Contains gas under pressure; may explode if heated.

**Precautionary statements:**

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/sparks/open flames/hot surfaces. - 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.

P410+P403 Protect from sunlight. Store in a well-ventilated place.

P403 Store in a well-ventilated place.

**Additional information:**

Pressurized container: protect from sunlight and do not expose to temperatures exceeding 50 °C. Do not pierce or burn, even after use.







Do not spray on a naked flame or any incandescent material. Keep away from sources of ignition - No smoking.

Buildup of explosive mixtures possible without sufficient ventilation.

**Other hazards:****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	butane	50-100%
EINECS: 203-448-7	 F+ R12	
	 Flam. Gas 1, H220; Press. Gas, H280	
CAS: 74-98-6	propane	25-50%
EINECS: 200-827-9	 F+ R12	
	 Flam. Gas 1, H220; Press. Gas, H280	
CAS: 75-28-5	isobutane	3-<10%
EINECS: 200-857-2	 F+ R12	
	 Flam. Gas 1, H220; Press. Gas, H280	

### 4 First aid measures

**Description of first aid measures:****After inhalation:** Supply fresh air; consult doctor in case of complaints.**After skin contact:**

Generally the product does not irritate the skin.

In cases of frost bites, rinse with plenty of water. Do not remove clothing.

**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.

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**Indication of any immediate medical attention and special treatment needed:**  
No further relevant information available.

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### 5 Firefighting measures

**Extinguishing media:**

**Suitable extinguishing agents:**

CO<sub>2</sub>, 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:** Can form explosive gas-air mixtures.

**Advice for firefighters:**

**Protective equipment:** Do not inhale explosion gases or combustion gases.

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### 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:** Prevent seepage into sewage system, workpits and cellars.

**Methods and material for containment and cleaning up:** Ensure adequate ventilation.

**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.

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### 7 Handling and storage

**Handling:**

**Precautions for safe handling:**

Open and handle receptacle with care.

Ensure good ventilation/exhaustion at the workplace.

Use only in well ventilated areas.

Ensure good interior ventilation, especially at floor level. (Fumes are heavier than air).

**Information about fire - and explosion protection:**

Keep ignition sources away - Do not smoke.

Protect from heat.

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.

Handle only outside or in explosion protected rooms.

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.

Store only in the original receptacle.

Observe official regulations on storing packagings with pressurized containers.

**Information about storage in one common storage facility:** Store away from flammable substances.

**Further information about storage conditions:**

Keep container tightly sealed.

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Store receptacle in a well ventilated area.  
Store in cool, dry conditions in well sealed receptacles.  
Protect from heat and direct sunlight.  
**Specific end use(s):** No further relevant information available.

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### 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:**

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**106-97-8 butane**

WEL Short-term value: 1810 mg/m<sup>3</sup>, 750 ppm  
Long-term value: 1450 mg/m<sup>3</sup>, 600 ppm  
Carc (if more than 0.1% of buta-1.3-diene)

**Exposure controls:**

**Personal protective equipment:**

**General protective and hygienic measures:**

The usual precautionary measures are to be adhered to when handling chemicals.

Keep away from foodstuffs, beverages and feed.

Do not inhale gases / fumes / aerosols.

Avoid contact with the eyes and skin.

Do not eat or drink while working.

**Respiratory protection:** Use suitable respiratory protective device when high concentrations are present.

**Protection of hands:** Leather gloves

**Material of gloves:**

The selection of the suitable gloves does not only depend on the material, but also on further marks of quality and varies from manufacturer to manufacturer.

**Penetration time of glove material:**

The exact break through time has to be found out by the manufacturer of the protective gloves and has to be observed.

**Eye protection:** Tightly sealed goggles

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### 9 Physical and chemical properties

**Information on basic physical and chemical properties:**

**General Information:**

**Appearance:**

**Form:** Compressed liquefied gas

**Colour:** Colourless

**Odour:** Characteristic

**Odour threshold:** Not determined.

**pH-value:** Not determined.

**Change in condition:**

**Melting point/Melting range:** Undetermined.

**Boiling point/Boiling range:** -44 °C

**Flash point:** -97 °C

**Flammability (solid, gaseous):** Not determined.

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<b>Ignition temperature:</b>	365 °C
<b>Decomposition temperature:</b>	Not determined.
<b>Self-igniting:</b>	Not determined.
<b>Danger of explosion:</b>	Product is not explosive. However, formation of explosive air/vapour mixtures are possible.
<b>Explosion limits:</b>	
<b>Lower:</b>	1.5 Vol %
<b>Upper:</b>	10.9 Vol %
<b>Vapour pressure at 20 °C:</b>	8300 hPa
<b>Density:</b>	Not determined.
<b>Relative density:</b>	Not determined.
<b>Vapour density:</b>	Not determined.
<b>Evaporation rate:</b>	Not applicable.
<b>Solubility in / Miscibility with water:</b>	Insoluble.
<b>Partition coefficient (n-octanol/water):</b>	Not determined.
<b>Viscosity:</b>	
<b>Dynamic:</b>	Not determined.
<b>Kinematic:</b>	Not determined.
<b>Other information:</b>	No further relevant information available.

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## 10 Stability and reactivity

**Reactivity:****Chemical stability:****Thermal decomposition / conditions to be avoided:**

No decomposition if used according to specifications.

**Possibility of hazardous reactions:**

Forms explosive gas mixture with air.

Can react violently with oxygen rich (oxidizing) material. Danger of Explosion.

Used empty containers may contain product gases which form explosive mixtures with air.

Reacts with oxygen.

Reacts with fats and oils.

**Conditions to avoid:** No further relevant information available.**Incompatible materials:** No further relevant information available.**Hazardous decomposition products:** No dangerous decomposition products known.

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## 11 Toxicological information

**Information on toxicological effects:****Acute toxicity:****Primary irritant effect:****on the skin:** Irritant to skin and mucous membranes.**on the eye:** Irritating effect.(Contd. on page 6)

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**Sensitization:** No sensitizing effects known.

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### 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.

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### 13 Disposal considerations

**Waste treatment methods:****Recommendation:**

Must not be disposed together with household garbage. Do not allow product to reach sewage system.

**Uncleaned packaging:****Recommendation:** Disposal must be made according to official regulations.**Recommended cleansing agents:** Water, if necessary together with cleansing agents.

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### 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

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**IMDG, IATA**

<b>Class:</b>	2 Gases.
<b>Label:</b>	2.1
<b>Packing group:</b>	-
<b>Environmental hazards:</b>	
<b>Marine pollutant:</b>	No
<b>Special precautions for user:</b>	Warning: Gases.
<b>EMS Number:</b>	F-D,S-U
<b>Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code</b>	Not applicable.
<b>UN "Model Regulation":</b>	UN2037, RECEPTACLES, SMALL, CONTAINING GAS (GAS CARTRIDGES), 2.1

### 15 Regulatory information

**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)

IMDG: International Maritime Code for Dangerous Goods

IATA: International Air Transport Association

GHS: Globally Harmonized System of Classification and Labelling of Chemicals

EINECS: European Inventory of Existing Commercial Chemical Substances

ELINCS: European List of Notified Chemical Substances

CAS: Chemical Abstracts Service (division of the American Chemical Society)