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

· Product identifier

· Trade name: APT Royal Gas / 200 ml

- *Relevant identified uses of the substance or mixture and uses advised against No further relevant information available.*
- Application of the substance / the preparation: Fuel gas

 Details of the supplier of the safety data sheet
Manufacturer/Supplier: Hager & Werken GmbH & Co.KG Ackerstrasse 1 47269 Duisburg

*Tel.: (+49)203/99269-0 Fax.:(+49)203/299283* 

- · Further information obtainable from: Abteilung Produktsicherheit
- Emergency telephone number:

*Giftinformationszentrum Nord der Länder Bremen, Hamburg, Niedersachsen und Schleswig-Holstein (GIZ Nord),* 

Georg August Universität Göttingen, Zentrum Pharmakologie und Toxikologie, Robert Koch Straße 40, 37075 Göttingen Tel.: 0551/192 40 Fax: 0551/383 1881 E-Mail: giznord@giz-nord.de Notrufnummer: +49(0)551/19240

### **2** Hazards identification

· Classification of the substance or mixture

Classification according to Regulation (EC) No 1272/2008



Flam. Aerosol 1 H222-H229 Extremely flammable aerosol. Pressurised container: May burst 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:

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.

- · 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
- · Hazard statements
- H222-H229 Extremely flammable aerosol. Pressurised container: May burst 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.

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<sup>·</sup> Label elements

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- P251 Pressurized container: Do not pierce or burn, even after use.
- *P211* Do not spray on an open flame or other ignition source.
- P410+P412 Protect from sunlight. Do not expose to temperatures exceeding 50 °C/122 °F.
- 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 of substances listed below with nonhazardous additions.

· Dangerous components:			
CAS: 106-97-8	butane	50-100%	
EINECS: 203-448-7	▶ F+ R12		
Index number: 601-004-00-0	🐼 Flam. Gas 1, H220; 🔗 Press. Gas, H280		
CAS: 74-98-6	propane	10-25%	
EINECS: 200-827-9			
Index number: 601-003-00-5	🚸 Flam. Gas 1, H220; 🔶 Press. Gas, H280		
CAS: 75-28-5	isobutane	2,5-10%	
EINECS: 200-857-2	▶ F+ R12		
Index number: 601-004-01-8	♦ Flam. Gas I, H220; ♦ Press. Gas, H280		

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

### 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.
- · 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** Firefighting measures

- · Extinguishing media
- Suitable extinguishing agents: CO2, sand, extinguishing powder. Do not use water.
- · For safety reasons unsuitable extinguishing agents: Water with full jet
- Special hazards arising from the substance or mixture No further relevant information available.
- Advice for firefighters
- · Protective equipment: No special measures required.

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### 6 Accidental release measures

- Personal precautions, protective equipment and emergency procedures Wear protective equipment Keep upprotected persons group
- Wear protective equipment. Keep unprotected persons away. • Environmental precautions:
- *Do not allow product to reach sewage system or any water course.*
- Inform respective authorities in case of seepage into water course or sewage system.
- Methods and material for containment and cleaning up:
- *Ensure adequate ventilation. Do not flush with water or aqueous cleansing agents*
- **Reference to other sections**
- See Section 7 for information on safe handling.
- See Section 7 for information on safe nanating. See Section 8 for information on personal protection equipment.
- See Section 13 for disposal information.

### 7 Handling and storage

#### · Handling:

- · Precautions for safe handling Open and handle receptacle with care.
- · Information about fire and explosion protection:
- Do not spray onto a naked flame or any incandescent material.
- 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.

#### · 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:
- Keep container tightly sealed.
- Do not seal receptacle gas tight.

Store in cool, dry conditions in well sealed receptacles.

Protect from heat and direct sunlight.

· 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:

The product does not contain any relevant quantities of materials with critical values that have to be monitored at the workplace.

- Additional information: The lists valid during the making were used as basis.
- · Exposure controls
- · Personal protective equipment:
- General protective and hygienic measures:

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

- Respiratory protection: Use suitable respiratory protective device in case of insufficient ventilation.
- **Protection of hands:** Not required.
- · 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. As the product is a preparation of several substances, the resistance of the glove material can not be calculated in advance and has therefore to be checked prior to the

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application.

· Penetration time of glove material

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

- $\cdot$  For the permanent contact gloves made of the following materials are suitable: Butyl rubber, BR
- Eye protection:



Tightly sealed goggles

Information on basic physical and	chemical properties
General Information	
Appearance:	
Form: Colour:	Liquefied gas Colourless
Odour:	Recognizable
Odour threshold:	Not determined.
pH-value:	Not determined.
Change in condition	
Melting point/Melting range:	Undetermined.
<b>Boiling point/Boiling range:</b>	-44 °C
Flash point:	$< \theta \ ^{\circ}C$
Flammability (solid, gaseous):	Not applicable.
Ignition temperature:	365 °C
Decomposition temperature:	Not determined.
Self-igniting:	Product is not selfigniting.
Danger of explosion:	Product is not explosive. However, formation of explosive air/vapou mixtures are possible.
Explosion limits:	
Lower:	1,5 Vol %
Upper:	10,9 Vol %
Vapour pressure at 20 °C:	~ 2700 hPa
Density at 20 °C:	0,56 g/cm <sup>3</sup>
Relative density	Not determined.
Vapour density	Not determined.
Evaporation rate	Not applicable.
Solubility in / Miscibility with	
water:	Not miscible or difficult to mix.
Partition coefficient (n-octanol/wat	er): Not determined.
Viscosity:	
Dynamic:	Not determined.
Kinematic:	Not determined.
Solvent content:	
Organic solvents:	100 %
VOC (EC)	100,00 %

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· Other information

No further relevant information available.

#### **10 Stability and reactivity**

- · Reactivity
- Chemical stability
- Thermal decomposition / conditions to be avoided: No decomposition if used according to specifications.
- · 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.

### **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

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

· European waste catalogue

14 06 03\* other solvents and solvent mixtures

15 01 04 metallic packaging

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

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UN-Number	
ADR, IMDG, IATA	UN1950
UN proper shipping name	
ADR	1950 AEROSOLS
	AEROSOLS
IATA	AEROSOLS, flammable
Transport hazard class(es)	
ADR	
2	
Class	2 5F Gases.
Label	2.1 2.1
IMDG, IATA	
2	
Class	2.1
Label	2.1
Packing group	
ADR, IMDG, IATA	Void
Environmental hazards:	N.
Marine pollutant:	No
Special precautions for user	Warning: Gases.
Danger code (Kemler):	- 
EMS Number:	F-D,S-U
Transport in bulk according to Annex	
MARPOL73/78 and the IBC Code	Not applicable.
Transport/Additional information:	
ADR	
Limited quantities (LQ)	1L
Transport category	2
Tunnel restriction code	D

# **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.

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H280 Contains gas under pressure; may explode if heated.	
R12 Extremely flammable.	
Abbreviations and acronyms:	
RID: Règlement international concernant le transport des marchandises dangereuses par chemin de fer (Regi	ulations Concerning the
International Transport of Dangerous Goods by Rail)	
ICAO: International Civil Aviation Organization	
ADR: Accord européen sur le transport des marchandises dangereuses par Route (European Agreement conce	erning 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)	
VOC: Volatile Organic Compounds (USA, EU)	
	EU