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SECTION 1: Identification of the substance/mixture and of the company/undertaking

· 1.1 Product identifier

· Trade name: APT Royal Gas / 200ml

.

· 1.2 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
- · 1.3 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
- · 1.4 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

SECTION 2: Hazards identification

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



GHS02 flame

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.

- · 2.2 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
- · 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.

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P103 Read label before use.

P210 Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.

P251 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: Contact with the liquid may cause frost damage and serious eye injuries.
- · 2.3 Other hazards
- · Results of PBT and vPvB assessment
- · PBT: Not applicable.
- · vPvB: Not applicable.

SECTION 3: Composition/information on ingredients

- · 3.2 Chemical characterization: Mixtures
- · **Description:** Mixture of substances listed below with nonhazardous additions.

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

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

SECTION 4: First aid measures

- · 4.1 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.
- · 4.2 Most important symptoms and effects, both acute and delayed No further relevant information available.
- · 4.3 Indication of any immediate medical attention and special treatment needed

No further relevant information available.

SECTION 5: Firefighting measures

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

SECTION 6: Accidental release measures

· 6.1 Personal precautions, protective equipment and emergency procedures

Wear protective equipment. Keep unprotected persons away.

· 6.2 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.

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· 6.3 Methods and material for containment and cleaning up:

Ensure adequate ventilation.

Do not flush with water or aqueous cleansing agents

· 6.4 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.

SECTION 7: Handling and storage

· 7.1 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.

- · 7.2 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.

· 7.3 Specific end use(s) No further relevant information available.

SECTION 8: Exposure controls/personal protection

- · Additional information about design of technical facilities: No further data; see item 7.
- · 8.1 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.
- · 8.2 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 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.

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Safety data sheet according to 1907/2006/EC, Article 31

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· Eye protection:



Tightly sealed goggles

SECTION 9: Physical and chemical properties

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· General Information

· Appearance:

Form: Aerosol Colour: Colourless · Odour: Recognizable Not determined. · Odour threshold:

· pH-value:

Not determined.

· Change in condition

Melting point/Melting range: Undetermined.

-44 °C Boiling point/Boiling range:

~ - 80 °C (closed cup) · Flash point:

· Flammability (solid, gaseous): Not applicable.

365 °C · Ignition temperature:

· Decomposition temperature: Not determined.

Self-igniting: Product is not selfigniting.

· Danger of explosion: Product is not explosive. However, formation of explosive air/vapour

mixtures are possible.

· Explosion limits:

1,5 Vol % Lower: 10,9 Vol % Upper:

~ 2700 hPa · Vapour pressure at 20 °C:

 0.56 g/cm^3 · Density at 20 °C: Not determined. · Relative density Not determined. · Vapour density · Evaporation rate Not applicable.

· Solubility in / Miscibility with

Not miscible or difficult to mix. water:

· Partition coefficient (n-octanol/water): Not determined.

· Viscosity:

Dynamic: Not determined. Kinematic: Not determined.

· Solvent content:

100,00 % Organic solvents: VOC (EC) 100,00 %

· 9.2 Other information No further relevant information available.

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SECTION 10: Stability and reactivity

- · 10.1 Reactivity
- · 10.2 Chemical stability
- Thermal decomposition / conditions to be avoided: No decomposition if used according to specifications.
- · 10.3 Possibility of hazardous reactions No dangerous reactions known.
- · 10.4 Conditions to avoid No further relevant information available.
- · 10.5 Incompatible materials: No further relevant information available.
- · 10.6 Hazardous decomposition products: No dangerous decomposition products known.

SECTION 11: Toxicological information

- · 11.1 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.

SECTION 12: Ecological information

- · 12.1 Toxicity
- · Aquatic toxicity: No further relevant information available.
- · 12.2 Persistence and degradability No further relevant information available.
- · 12.3 Bioaccumulative potential No further relevant information available.
- · 12.4 Mobility in soil No further relevant information available.
- · Additional ecological information:
- · General notes: Generally not hazardous for water
- · 12.5 Results of PBT and vPvB assessment
- · **PBT:** Not applicable.
- · vPvB: Not applicable.
- · 12.6 Other adverse effects No further relevant information available.

SECTION 13: Disposal considerations

- · 13.1 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.

SECTION 14: Transport information

- · 14.1 UN-Number
- · ADR, IMDG, IATA UN1950
- · 14.2 UN proper shipping name
- · ADR 1950 AEROSOLS
 · IMDG AEROSOLS

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IATA	AEROSOLS, flammable		
14.3 Transport hazard class(es)			
ADR			
Class	2 5F Gases.		
Label	2.1		
IMDG, IATA			
Class	2.1		
Label	2.1		
14.4 Packing group ADR, IMDG, IATA	Void		
14.5 Environmental hazards: Marine pollutant:	No		
14.6 Special precautions for user	Warning: Gases.		
Danger code (Kemler):	-		
EMS Number:	F-D,S-U		
14.7 Transport in bulk according to Anne			
MARPOL73/78 and the IBC Code	Not applicable.		
Transport/Additional information:			
ADR			
Limited quantities (LQ)	IL		
Excepted quantities (EQ)	Code: E0		
	Not permitted as Excepted Quantity		
Transport category	2		
Tunnel restriction code	D		
IMDG			
Limited quantities (LQ)	IL		
Excepted quantities (EQ)	Code: E0		
	Not permitted as Excepted Quantity		
UN "Model Regulation":	UN1950, AEROSOLS, 2.1		

SECTION 15: Regulatory information

- · 15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture No further relevant information available.
- · 15.2 Chemical safety assessment: A Chemical Safety Assessment has not been carried out.

SECTION 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.

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· Relevant phrases

H220 Extremely flammable gas.

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 (Regulations 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 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)

VOC: Volatile Organic Compounds (USA, EU)

Flam. Gas 1: Flammable gases, Hazard Category 1

Flam. Aerosol 1: Flammable aerosols, Hazard Čategory 1

Press. Gas: Gases under pressure: Compressed gas

FH