

Date of issue: 04.03.04 **Replace Data Sheet of:-**
alterations as compared to previous version; n.ap=not applicable; n.av.=not available

1. Identification of Substance / Preparation and Company

1.1 Identification of Substance or Preparation

Trade Name: Fuel Cell 40 g

Article No.: 44772

Preparation No.:

1.2 Use of the substance/preparation:

1.3 Company/Supplier Identification

1.3.1. Address of the Company/Supplier:

OK Befestigung GmbH & Co. KG, Liesentorweg 19a, 47802 Krefeld

Telephone: +49-2151 – 953 639 , Fax: +49-2151 – 953 649

1.3.2. Responsible:

Aerochemica GmbH, Hooghe Weg 35, D-47906 Kempen

Telephone: +49-2152 – 1416 – 0 , Fax: +49-2152 – 50849

1.3.1 Emergency – Telephone

Information Centre Specialising in Symptoms of Poisoning Emergency-Telephone of Company/Undertaking

Telephone: ++49-761-19 240

Telephone: +49-2152-14 16-0

2 Composition/Information on Ingredients

2.1 Chemical Characterisation:

Aerosol with synthetic lubricants

2.2 Dangerous Ingredients:

CAS-No.	Index-No.	EINECS/ELINCS-No.	Material	m%-range	Symbol	R-phrases
74-98-6		200-827-9	Propane	10-30%	F+	12
106-97-8		203-448-7	Butane	60-80%	F+	12

Remarks: Classification and labelling of a product is indicated under item 15.

3 Hazards Identification

3.1 For Humans (additional information is given under item 11):

May form explosive vapour-air mixture. Degreases skin. May be harmful if inhaled. May be irritating to eyes.

Repeated exposure may cause skin dryness or cracking. Vapours may cause drowsiness and dizziness.

Leaking gas may cause frost-bites

4. First Aid Measures

4.1 Inhalation:

The following symptoms may occur: headache, Confusion, dizziness

Remove from danger area and provide for fresh air.

If symptoms persist, consult physician.

4.2 Skin Contact:

Wash with soap and water.

If irritation persists consult physician.

4.3 Eye Contact:

Flush eyes out immediately with large amounts of water with eye lids lifted.

If irritation persists consult physician.

4.4 Ingestion:

n.ap

4.5 Note to Physician:

Symptomatic treatment. Continue to monitor for pneumonia and pulmonary oedema. No specific antidotes known.

4.6 Special Equipment:

n.av

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5 Fire Fighting Measures

5.1 Suitable Extinguishing Media: Water spray jet, foam, dry chemicals; CO₂

5.2 Extinguishing Media to Avoid: None

5.4 Additional Information: Cool containers at risk with water spray jet.

5.5 Special Protective Equipment:

Wear positive pressure self-contained breathing apparatus.

Wear full protective clothing.

6. Accidental Release Measures

6.1 Personal Precautions:

See No. 8.3 Personal Protective Equipment. Provide sufficient ventilation. Keep away from sources of ignition.

7 Handling and Storage (For national regulations refer to item 15.2)

7.1 Handling

7.1.1 Precautions for Safe Handling:

Application only when sufficient ventilated. Take precautionary measures against static discharges.

7.1.2 Precautions in Case of Fire and Explosion:

Vapours may form an explosive mixture with air. Keep away from sources of ignition, do not smoke.

7.2 Storage

7.2.1 Storage Instructions:

Floor must be resistant against solvents. Provide sufficient ventilation.

7.2.2 Store away from:

Store away from oxidizers.

7.2.3 Further Information on Storage Conditions:

Protect container from warming up and direct sunlight.

7.2.4 Storage Class: 2B (VCI – Concept)

8 Exposure Controls and Personal Protection

8.1 Information on System Design:

Provide for sufficient exhaustion. Provide personal protective equipment.

8.2 Exposure Limits:

8.2.1. Material	Limit Value
Gases C3-C4	OEL 1000 ppm

8.3 Personal Protective Equipment

8.3.1 General Protection and Hygiene:

Do not breathe spray. Keep spray stream away from body. Avoid contact with eyes and skin.

Take off contaminated, saturated clothing immediately. Do not eat, drink or smoke during work.

8.3.2 Respiratory Protection: If ventilation is insufficient, wear respiratory protection Filter A2

8.3.3 Hand Protection: Gloves (solvent-resistant)(Viton,PVC: Permeationtime >6h)

8.3.4 Eye Protection: Goggles

8.3.5 Skin Protection: Light protective clothing

8.3.6 Further Information: Refer to special restrictions in wearing protective equipment

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9 Physical and Chemical Properties

9.1	Appearance		
9.1.1	Form: Aerosol	9.1.2 Color: colourless	9.1.3. Odour: solvent-like
9.2	Safety Relevant Data		
9.2.1	pH-value, undiluted	n.ap., pH-value, 1% aqueous solution:n.ap	
9.2.2	Boiling point/Boiling-range (°C):	>0, Melting point/Melting range (°C): n.av.	
9.2.3	Flash point (°C,c,c):	> -20°C	
9.2.4	Flammability (EEC A10/A13):	n.av	
9.2.5	Ignition temperature (°C):	460	
9.2.6	Autoflammability (EEC A16):	n.ap.	
9.2.7	Oxidising properties:	None	
9.2.8	Explosion hazard:	n.av	
9.2.9	Explosion limits (Vol.%)lower:	1,8 upper: 8,5	
9.2.10	Vapour pressure:	insite bag: 2700 hPa outside bag: 4.200 hPa (RT) pressure increased by nitrogen to 9000 hPa (RT)	
9.2.11	Density (g/ml):	<0,56	
9.2.12	Solubility (in Water):	insoluble	Soluble in: most organic solvents.
9.2.13	Partition coefficient,n-Octanol/Water:	n.av	
9.2.14	Viscosity:	n.av	
9.2.15	Solvent separation test:	n.ap.	
9.3	Further Data		
9.3.1	Thermal decomposition (°C):	n.ap	
9.3.2	Vapour density (Air=1):	>1(Vapours are heavier than air).	
9.3.3	Evaporation rate:	n.av	

10 Stability and Reactivity

10.1	Conditions to Avoid:	Sparks, flames, static charge Formation of explosive gas/air mixtures.
10.2	Materials to Avoid:	Reactions with strong oxidizing agents
10.3	Hazardous Decomposition Products:	No hazardous decomposition products know
10.4	Further Information:	Because of the high vapour pressure, containers are liable to burst if temperature rises.

11 Toxicological Information

11.1	Toxicological Tests:	
11.1.1	Acute Health Effects:	
	Inhalation, LC50rat,(mg/l/4h):	n.av.
	Ingestion, LD50rat,(mg/kg):	n.av
	Skin-contact. LD50rat,(mg/kg):	n.av
	Irritation (to skin/eye):	Moderate eye irritation
	Sensitisation:	n.av
11.1.2	Subacute/Chronic Toxicity:	
	Carcinogenicity:	n.av.
	Mutagenicity:	n.av
	Teratogenicity:	n.av
	Narcotic Effects:	Causes disorders of the central nervous system and can cause headache,respiratory difficulties or unconsciousness.Inhalation of solvent-vapours in high concentration causes narcotic effects.
11.2	Practical Experience	
11.2.1	Observations relevant for classification:	None.
11.2.2	Further Observations:	Frequent or permanent contact to skin may lead to irritation or dermatitis.
11.3	General Remarks:	Classification of the preparation has been done by calculation in accordance with EEC directives.

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12 Ecological Information

12.1 Ecotoxic Effects, Aquatic Toxicity:
n.av.

12.2 **Behaviour in Sewage Works:**
Mobility and Accumulation Potential: n.av

12.3 **Elimination (Persistence and Degradability):**
The product is biodegradable.
The product is highly volatile and can be largely eliminated from the water by stripping.

12.4 Other Ecological Information

- 12.4.1 COD-Value,mg/g: n.av
12.4.2 BOD5-Value,mg/g: n.av
12.4.3 AOX-Remarks: Not relevant
12.4.4 Significant Components: None
12.4.5 Other adverse effects: None

13 Disposal Considerations (For national Regulations refer to item 15.)

13.1 Residues

13.1.1 Recommendation:D 10/R1 Waste-Code-Nr.: 160503
In addition comply with the regional authorities.

13.1.2 Safe Handling: See item 7 and 15.

13.2 Contaminated Packaging

- 13.2.1 Recommendation: Wash with suitable cleaner. Otherwise as described under Residues.
13.2.2 Safe Handling: As described under Residues

14 Transport Information

14.1 Transportation by Road or Railway according to ADR and RID

Remarks:

Class: 2 Classification Code: 5F Packing Group: n.ap
Hazard-No.: UN-No.: 1950

14.1.1 **Instruction Concerning Shipper's Declaration and Packaging:**

Volume or Mass	Name and Description	Riskabel Packing-Code or instruction
75 ml	UN 1950 Aerosols	2.1 P204
75 ml (max 30 Kg Brutto)	UN 1950 Aerosols	n.ap. P204/LQ2

14.2 **Classification for Transportation by Inland-Navigation according to ADNO**

Remarks: Classification has not been done.

Class: Division: Category:

14.2.1 **Description of Goods:**

14.2.2 **Remarks:**

14.3 **Classification for Transportation by Vessels according to IMDG**

Remarks:

Class: 2 UN Nr.: 1950 Packing Group: n.ap

14.3.1 **EmS-No.: F-D,S-U**

14.3.2 **Marine Pollutant: No**

14.3.3 **Instruction for Declaration and Labelling:**
(Packing sizes with possible exemptions not considered)

Proper Shipping Name: Aerosols

Risk Label: Compressed Gas

14.3.4 **Remarks:** none:

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14.4 Classification for Transportation by Aeroplane according to IATA-DGR/ICAO-TI

Remarks:

Class: 2.1 UN-Nr.: 1950 Packing Group: n.ap

14.4.1 Instruction for Declaration and Labelling:

(Packing sizes with possible exemptions not considered)

Proper Shipping Name: Aerosols, flammable

Risk Label: Flammable gas

Packing Instructions, Passenger: 203 Cargo: 203

14.4.2 Remarks: None

15 Regulatory Information

15.1 Classification according to EEC-Regulations:

Classification required by EEC: Yes

Applicable Exemptions: No

Hazard Identification: Extremely flammable

Hazard Symbol(s):

Component(s):

R-Phrases: 12 Extremely flammable

F+

S-Phrases: 23.4 Do not breathe spray

Additional Markings:

Container is under pressure. Protect against direct sunlight and temperatures exceeding 50°C. Do not burn or try

to open the container even when empty. Do not spray onto flames or smouldering objects. Keep away from sources of

ignition – no smoking. Keep out of reach of children. Use only in well ventilated areas! Developing vapours may lead

in case of insufficient ventilation to explosive or occasionally harmful concentrations.

15.1.1 The above mentioned labelling is valid for distribution to private consumer.

Labelling (formats, exemptions, additional markings) has to be done according to respective regulations.

15.2 National Regulations

VOC-Content: 100 %

16 Other Information

Risk-Phrases from section 2

R 12: Extremely flammable

This Material Safety Data Sheet relates to 2001/58/EEC and TRGS 220.

The statements in this Material Safety Data Sheet were made to the best of our knowledge and are as accurate as possible.

They are given for information only. They do not constitute a contractual guarantee of a product's properties. They must neither be altered nor transferred to other products.