Safety Data Sheet

according to Regulation (EC) No 1907/2006

Gas cartridge for PYROSIL

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

1.1. Product identifier

Gas cartridge for PYROSIL

Further trade names

BO 5209495, 27,5 g, BO 5209490 SET
BO 5209496, 27,5 g, BO 5209491 SET
BO 5209497, 330 g

UFI: PHFT-EHNV-0PCY-70SD

1.2. Relevant identified uses of the substance or mixture and uses advised against

Use of the substance/mixture

Plating agent

Uses advised against

None known.

1.3. Details of the supplier of the safety data sheet

Company name:	BOHLE AG	
Street:	Dieselstr. 10	
Place:	D-42781 Haan	
Telephone:	+49 2129 5568-0	Telefax: +49 2129 5568-282
E-mail:	info@bohle.de	
Contact person:	Dr. Martin Schade	Telephone: +49 2129 5568-300
E-mail:	MSDS@bohle.de	
Internet:	www.bohle.com	
Responsible Department:	Chemie	

1.4. Emergency telephone number:

Emergency CONTACT (24-Hour-Number): GBK GmbH +49 (0)6132-84463

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

Regulation (EC) No 1272/2008

Aerosol 1; H222-H229

Full text of hazard statements: see SECTION 16.

2.2. Label elements

Regulation (EC) No 1272/2008

Signal word: Danger

Pictograms:



Hazard statements

H222	Extremely flammable aerosol.
H229	Pressurised container: May burst if heated.

Precautionary statements

P210	Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
P211	Do not spray on an open flame or other ignition source.
P251	Do not pierce or burn, even after use.

P410+P412	Protect from sunlight. Do not expose to temperatures exceeding 50 °C/122 °F.
P260	Do not breathe Aerosol.
P271	Use only outdoors or in a well-ventilated area.

Special labelling

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. Keep out of the reach of children.

Labelling of packages where the contents do not exceed 125 ml

Signal word: Danger

Pictograms:



Hazard statements

H222-H229

Precautionary statements

P210-P211-P251-P410+P412

SECTION 3: Composition/information on ingredients

3.2. Mixtures

Relevant ingredients

CAS No	Chemical name			Quantity
	EC No	Index No	REACH No	
	Classification (Regulation (EC) No 1272/2008)			
106-97-8	butane			50-80 %
	203-448-7	601-004-00-0		
	Flam. Gas 1; H220			
74-98-6	propane			20-50 %
	200-827-9	601-003-00-5		
	Flam. Gas 1; H220			

Full text of H and EUH statements: see section 16.

SECTION 4: First aid measures

4.1. Description of first aid measures

General information

Take off immediately all contaminated clothing and wash it before reuse.

After inhalation

Provide fresh air.
Call a doctor if you feel unwell.

After contact with skin

Wash frost-bitten areas with plenty of water. Do not remove clothing.
In case of skin irritation, consult a physician.

After contact with eyes

In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.

After ingestion

Immediately give large quantities of water to drink. Do not induce vomiting. Consult a physician if necessary.

4.2. Most important symptoms and effects, both acute and delayed

Dizziness

May cause drowsiness or dizziness.

4.3. Indication of any immediate medical attention and special treatment needed

Treat symptomatically.

SECTION 5: Firefighting measures

5.1. Extinguishing media

Suitable extinguishing media

carbon dioxide (CO_2), Water spray jet, dry chemical, Foam

Unsuitable extinguishing media

high volume water jet

5.2. Special hazards arising from the substance or mixture

Danger of bursting container.

Pyrolysis products, toxic

5.3. Advice for firefighters

Wear self contained breathing apparatus for fire fighting if necessary.

Additional information

Use water spray to cool unopened containers.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

General advice

Keep away from sources of ignition - No smoking.

Provide adequate ventilation.

Use personal protection equipment.

6.2. Environmental precautions

Do not allow to enter into surface water or drains.

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Advice on safe handling

Use only in well-ventilated areas.

Provide sufficient air exchange and/or exhaust in work rooms.

Advice on protection against fire and explosion

Keep away from sources of ignition - No smoking.

Vapours can form explosive mixtures with air.

Advice on general occupational hygiene

Keep away from food, drink and animal feeding stuffs.

Avoid contact with the skin and the eyes.

Do not breathe vapour/aerosol.

Further information on handling

When using do not eat, drink or smoke.

Draw up and observe skin protection programme.

7.2. Conditions for safe storage, including any incompatibilities

Requirements for storage rooms and vessels

Keep container in a well-ventilated place.
Keep away from heat and sources of ignition.

Hints on joint storage

Oxidising agent
Keep away from food, drink and animal feedingstuffs.

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

Occupational exposure limits

CAS No	Substance	ppm	mg/m³	fib/cm³	Category	Origin
74-98-6	Aliphatic hydrocarbon gases, Alkanes (C1-C3), Propane	-	-		Asphyxiant	
106-97-8	Butane, all isomers - n-butane	1000	-		STEL (15 min)	

8.2. Exposure controls

Appropriate engineering controls

Provide adequate ventilation.

Individual protection measures, such as personal protective equipment

Eye/face protection

safety glasses with side-shields conforming to EN166

Hand protection

leather gloves, solvent-resistant gloves (butyl-rubber)

Skin protection

Wear suitable protective equipment.

Respiratory protection

No personal respiratory protective equipment normally required.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state:	compressed liquefied gas	
Colour:	colourless	
Odour:	characteristic	
Flammability:		Yes.
Lower explosion limits:		1,8 vol. %
Upper explosion limits:		8,8 vol. %
Flash point:		-40 °C
Density (at 20 °C):		0,56 g/cm³

SECTION 10: Stability and reactivity

10.1. Reactivity

No hazardous reaction when handled and stored according to provisions.

10.2. Chemical stability

Stable under normal conditions.

10.3. Possibility of hazardous reactions

Heating causes rise in pressure with risk of bursting.

10.4. Conditions to avoid

No decomposition if stored and applied as directed.
Keep away from heat and sources of ignition.

10.5. Incompatible materials

oxidizing agents

10.6. Hazardous decomposition products

Carbon monoxide

SECTION 11: Toxicological information

11.1. Information on hazard classes as defined in Regulation (EC) No 1272/2008

Acute toxicity

Based on available data, the classification criteria are not met.
None known.

ATEmix calculated

ATE (oral) > 2000 mg/kg; ATE (dermal) > 2000 mg/kg; ATE (inhalation vapour) > 20 mg/l; ATE (inhalation dust/mist) > 5 mg/l

Irritation and corrosivity

Skin corrosion/irritation: Based on available data, the classification criteria are not met.
Serious eye damage/eye irritation: Based on available data, the classification criteria are not met.

Sensitising effects

Based on available data, the classification criteria are not met.

Carcinogenic/mutagenic/toxic effects for reproduction

Germ cell mutagenicity: Based on available data, the classification criteria are not met.
Carcinogenicity: Based on available data, the classification criteria are not met.
Reproductive toxicity: Based on available data, the classification criteria are not met.

STOT-single exposure

Based on available data, the classification criteria are not met.

STOT-repeated exposure

Based on available data, the classification criteria are not met.

Aspiration hazard

Based on available data, the classification criteria are not met.

Additional information on tests

Health injuries are not known or expected under normal use. Concentration above the admissible concentration at the workplace may cause dizziness, headache and inebriation. Rapid evaporation of the liquid may cause frostbite.

11.2. Information on other hazards

Endocrine disrupting properties

This information is not available.

SECTION 12: Ecological information

12.1. Toxicity

This product has no known eco-toxicological effects. Ecological injuries are not known or expected under normal use.

12.3. Bioaccumulative potential

Bioaccumulation is unlikely.

Partition coefficient n-octanol/water

CAS No	Chemical name	Log Pow
106-97-8	butane	2,89
74-98-6	propane	2,36

12.4. Mobility in soil

not relevant

12.5. Results of PBT and vPvB assessment

The substances in the mixture do not meet the PBT/vPvB criteria according to REACH, annex XIII.

12.6. Endocrine disrupting properties

This product does not contain a substance that has endocrine disrupting properties with respect to non-target organisms as no components meets the criteria.

12.7. Other adverse effects

This information is not available.

SECTION 13: Disposal considerations

13.1. Waste treatment methods

Disposal recommendations

Non-contaminated packages may be recycled.

List of Wastes Code - residues/unused products

160504 WASTES NOT OTHERWISE SPECIFIED IN THE LIST; gases in pressure containers and discarded chemicals; gases in pressure containers (including halons) containing hazardous substances; hazardous waste

List of Wastes Code - contaminated packaging

150110 WASTE PACKAGING; ABSORBENTS, WIPING CLOTHS, FILTER MATERIALS AND PROTECTIVE CLOTHING NOT OTHERWISE SPECIFIED; packaging (including separately collected municipal packaging waste); packaging containing residues of or contaminated by hazardous substances; hazardous waste

SECTION 14: Transport information

Land transport (ADR/RID)

14.1. UN number or ID number: UN 1950
14.2. UN proper shipping name: AEROSOLS
14.3. Transport hazard class(es): 2
14.4. Packing group: -
Hazard label: 2.1



Classification code: 5F
Special Provisions: 190 327 344 625
Limited quantity: 1 L
Excepted quantity: E0
Transport category: 2
Tunnel restriction code: D

Inland waterways transport (ADN)

14.1. UN number or ID number: UN 1950
14.2. UN proper shipping name: AEROSOLS
14.3. Transport hazard class(es): 2
14.4. Packing group: -

Hazard label:	2.1



Classification code:	5F
Special Provisions:	190 327 344 625
Limited quantity:	1 L
Excepted quantity:	E0

Marine transport (IMDG)

14.1. UN number or ID number:	UN 1950
14.2. UN proper shipping name:	AEROSOLS
14.3. Transport hazard class(es):	2.1
14.4. Packing group:	-
Hazard label:	2.1



Special Provisions:	63, 190, 277, 327, 344, 959
Limited quantity:	1000 mL
Excepted quantity:	E0
EmS:	F-D, S-U

Air transport (ICAO-TI/IATA-DGR)

14.1. UN number or ID number:	UN 1950
14.2. UN proper shipping name:	AEROSOLS
14.3. Transport hazard class(es):	2.1
14.4. Packing group:	-
Hazard label:	2.1



Special Provisions:	A145 A167 A802
Limited quantity Passenger:	30 kg G
Passenger LQ:	Y203
Excepted quantity:	E0
IATA-packing instructions - Passenger:	203
IATA-max. quantity - Passenger:	75 kg
IATA-packing instructions - Cargo:	203
IATA-max. quantity - Cargo:	150 kg

SECTION 15: Regulatory information

15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture

EU regulatory information

Restrictions on use (REACH, annex XVII):
Entry 3, Entry 29, Entry 40

Directive 2004/42/EC on VOC in paints and varnishes: 100 % (560 g/l)

National regulatory information

Water hazard class (D): - - non-hazardous to water

SECTION 16: Other information

Changes

This data sheet contains changes from the previous version in section(s): 11,12.

Abbreviations and acronyms

Flam. Gas 1: Flammable gases, hazard category 1
Aerosol 1: Aerosols, hazard category 1

Classification for mixtures and used evaluation method according to Regulation (EC) No 1272/2008 [CLP]

Classification	Classification procedure
Aerosol 1; H222-H229	On basis of test data

Relevant H and EUH statements (number and full text)

H220	Extremely flammable gas.
H222	Extremely flammable aerosol.
H229	Pressurised container: May burst if heated.

Further Information

The information is based on the present level of our knowledge. It does not, however, give assurance of product properties and establishes no contract legal rights. The receiver of our product is singularly responsible for adhering to existing laws and regulations.

(The data for the relevant ingredients were taken respectively from the last version of the sub-contractor's safety data sheet.)