

according to Regulation (EC) No 1907/2006

**Gas cartridge for PYROSIL**

Revision date: 09.09.2019

Product code: BO5209497

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**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

**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:	Klaus Nehren	Telephone: +49 2129 5568-276
e-mail:	MSDS@bohle.de	
Internet:	www.bohle.com	
Responsible Department:	Chemie	

**SECTION 2: Hazards identification****2.1. Classification of the substance or mixture****Regulation (EC) No. 1272/2008**

Hazard categories:

Aerosol: Aerosol 1

Hazard Statements:

Extremely flammable aerosol.

Pressurised container: May burst if heated.

**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.

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P271 Use only outdoors or in a well-ventilated area.

**Special labelling of certain mixtures**

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.

**SECTION 3: Composition/information on ingredients****3.2. Mixtures****Hazardous components**

CAS No	Chemical name	Quantity
	EC No	
	Index No	
	REACH No	
	GHS Classification	
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<sub>2</sub>), Water spray jet, dry chemical, Foam**Unsuitable extinguishing media**

high volume water jet

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**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**

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.

**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****Exposure limits (EH40)**

CAS No	Substance	ppm	mg/m <sup>3</sup>	fibres/ml	Category	Origin
106-97-8	Butane	600	1450		TWA (8 h)	WEL
		750	1810		STEL (15 min)	WEL

**8.2. Exposure controls****Appropriate engineering controls**

Provide adequate ventilation.

**Protective and hygiene measures**

Keep away from food, drink and animal feeding stuffs.

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Avoid contact with the skin and the eyes.  
Do not breathe vapour/aerosol.

**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

**Changes in the physical state**

Flash point: -40 °C

**Flammability**

Gas: Yes.

Lower explosion limits: 1,8 vol. %

Upper explosion limits: 8,8 vol. %

Density (at 20 °C): 0,56 g/cm<sup>3</sup>**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 toxicological effects****Acute toxicity**

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

None known.

**Irritation and corrosivity**

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

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**Sensitising effects**

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

**Carcinogenic/mutagenic/toxic effects for reproduction**

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.

**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

**SECTION 13: Disposal considerations****13.1. Waste treatment methods****Advice on disposal**

Non-contaminated packages may be recycled.

**Waste disposal number of waste from 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

**Waste disposal number of 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:** UN 1950  
**14.2. UN proper shipping name:** AEROSOLS  
**14.3. Transport hazard class(es):** 2  
**14.4. Packing group:** -

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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:** 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:** 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:** 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



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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 29: butane

2004/42/EC (VOC): 100 % (560 g/l)

##### National regulatory information

Water contaminating class (D): - - not water contaminating

### SECTION 16: Other information

#### 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 present level of our knowledge. It does not, however, give assurances 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 hazardous ingredients were taken respectively from the last version of the sub-contractor's safety data sheet.)*