



Safety Data Sheet

according to Regulation (EC) No 1907/2006

Banner Polschutzspray

Revision date: 29.09.2016

Product code: 200-16-BB

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H411 Toxic to aquatic life with long lasting effects.

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.

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

P280 Wear protective gloves/protective clothing/eye protection/face protection.

P302+P352 IF ON SKIN: Wash with plenty of water.

P410+P412 Protect from sunlight. Do not expose to temperatures exceeding 50 °C/122 °F.

P501 Dispose of contents/container to Dispose of in accordance with the European Directives on waste and hazardous waste..

2.3. Other hazards

No information available.

SECTION 3: Composition/information on ingredients

3.2. Mixtures

Hazardous components

CAS No	Chemical name	Quantity		
	EC No	Index No	REACH No	
	Classification according to Regulation (EC) No. 1272/2008 [CLP]			
106-97-8	butane			35 - < 40 %
	203-448-7	601-004-00-0	01-2119474691-32	
	Flam. Gas 1, Compressed gas; H220 H280			
	Hydrocarbons C6-C7, n-alkanes, isoalkanes, <5% n-hexane			25 - < 30 %
	921-024-6		01-2119475514-35	
	Flam. Liq. 2, Skin Irrit. 2, STOT SE 3, Asp. Tox. 1, Aquatic Chronic 2; H225 H315 H336 H304 H411			
74-98-6	propane			15 - < 20 %
	200-827-9	601-003-00-5	01-2119486944-21	
	Flam. Gas 1, Compressed gas; H220 H280			
110-82-7	cyclohexane			0,5-<1 %
	203-806-2	601-017-00-1		
	Flam. Liq. 2, Asp. Tox. 1, Skin Irrit. 2, STOT SE 3, Aquatic Acute 1, Aquatic Chronic 1; H225 H304 H315 H336 H400 H410			
110-54-3	n-hexane			0,5-<1 %
	203-777-6	601-037-00-0		
	Flam. Liq. 2, Repr. 2, Asp. Tox. 1, STOT RE 2, Skin Irrit. 2, STOT SE 3, Aquatic Chronic 2; H225 H361f *** H304 H373 ** H315 H336 H411			

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

SECTION 4: First aid measures

4.1. Description of first aid measures

General information

Move out of dangerous area.

In the case of accident or if you feel unwell, seek medical advice immediately (show the label where possible).

After inhalation

Move to fresh air. In case of feeling unwell: Consult a physician.



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After contact with skin

Wash off immediately with soap and plenty of water while removing all contaminated clothes and shoes. Wash contaminated clothing before re-use. If skin irritation persists, call a physician.

After contact with eyes

Immediately flush eye(s) with plenty of water. Consult a physician.

After ingestion

Drink plenty of water. Do not induce vomiting. Call a physician immediately.
Risk of product entering the lungs on vomiting after ingestion.

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

No information available.

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 (CO₂), foam, dry powder.

Unsuitable extinguishing media

water.

5.2. Special hazards arising from the substance or mixture

Flammable. Vapours may form explosive mixtures with air.

5.3. Advice for firefighters

Wear self-contained breathing apparatus and protective suit.

Additional information

Suppress (knock down) gases/vapours/mists with a water spray jet. Collect contaminated fire extinguishing water separately. This must not be discharged into drains. Prevent fire extinguishing water from contaminating surface water or the ground water system. The pressure in sealed containers can increase under the influence of heat.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

Remove all sources of ignition. Avoid contact with skin, eyes and clothing. Use personal protective equipment. Ensure adequate ventilation. Do not breathe vapours or spray mist.

6.2. Environmental precautions

Should not be released into the environment. Explosive properties.

6.3. Methods and material for containment and cleaning up

Soak up with inert absorbent material (e.g. sand, silica gel, acid binder, universal binder, sawdust). Treat recovered material as described in the section "Disposal considerations".

6.4. Reference to other sections

See also section 7- Safe handling advice
See also section 8 - Personal protective equipment
See also section 13. Disposal considerations

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Advice on safe handling

Do not pierce or burn, even after use. Do not spray on a naked flame or any incandescent material. Provide sufficient air exchange and/or exhaust in work rooms. Do not inhale aerosol.



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Advice on protection against fire and explosion

Do not spray on a naked flame or any other incandescent material. Pressurized container. Protect from sunlight and do not expose to temperatures exceeding 50°C. Keep away from sources of ignition - No smoking. Take measures to prevent the build up of electrostatic charge. Vapours may form explosive mixtures with air.

7.2. Conditions for safe storage, including any incompatibilities

Requirements for storage rooms and vessels

Keep tightly closed. Keep in a cool, well-ventilated place. Keep away from fire, sparks and heated surfaces. Do not smoke.

Advice on storage compatibility

Do not store together with oxidizing agents, Oxidizing and spontaneously flammable products

Further information on storage conditions

Recommended storage temperature: 10-30°C

Maximum storage temperature: 50°C

7.3. Specific end use(s)

corrosion inhibitor - aerosol

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

Exposure limits (EH40)

CAS No	Substance	ppm	mg/m ³	fibres/ml	Category	Origin
106-97-8	Butane	600	1450		TWA (8 h)	WEL
		750	1810		STEL (15 min)	WEL
110-82-7	Cyclohexane	100	350		TWA (8 h)	WEL
		300	1050		STEL (15 min)	WEL
110-54-3	n-Hexane	20	72		TWA (8 h)	WEL
		-	-		STEL (15 min)	WEL

DNEL/DMEL values

CAS No	Substance	Exposure route	Effect	Value
	Hydrocarbons C6-C7, n-alkanes, isoalkanes, <5% n-hexane			
Consumer DNEL, long-term		oral	systemic	699 mg/kg bw/day
Consumer DNEL, long-term		dermal	systemic	699 mg/kg bw/day
Worker DNEL, long-term		dermal	systemic	773 mg/kg bw/day
Consumer DNEL, long-term		inhalation	systemic	608 mg/m ³
Worker DNEL, long-term		inhalation	systemic	2035 mg/m ³

8.2. Exposure controls



Appropriate engineering controls

Provide sufficient air exchange and/or exhaust in work rooms.
Do not breathe vapours or spray mist.



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Protective and hygiene measures

Take off contaminated clothing and shoes immediately. preventive skin protection. Wash hands and face before breaks and immediately after handling the product. When using do not eat or drink.

Eye/face protection

safety glasses with side-shields

Hand protection

The selected protective gloves have to satisfy the specifications of EU Directive 89/689/EEC and the standard EN 374 derived from it. The exact break through time can be obtained from the protective glove producer and this has to be observed.

Glove material: butyl-rubber (0,4 mm)

Break through time: 120 min.

Skin protection

flame retardant antistatic protective clothing

Respiratory protection

In case of insufficient ventilation, wear suitable respiratory equipment. Respirator with combination filter for vapour/particulate (EN 141). (A-P2)

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state:	liquid
Colour:	blue
Odour:	characteristic
pH-Value:	not applicable

Changes in the physical state

Melting point:	not applicable
Initial boiling point and boiling range:	< -20 °C
Flash point:	< -20 °C

Flammability

Solid:	not applicable
Gas:	not applicable
Lower explosion limits:	0,8 vol. %
Upper explosion limits:	12 vol. %
Ignition temperature:	> 200 °C

Auto-ignition temperature

Solid:	not applicable
Gas:	not applicable
Decomposition temperature:	not determined

Oxidizing properties

no data available

Vapour pressure:	not determined
Density (at 20 °C):	0,613 g/cm ³
Water solubility:	practically insoluble

Solubility in other solvents

not determined

Partition coefficient:	not determined
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Viscosity / kinematic: not applicable
Vapour density: not determined
Evaporation rate: not determined

9.2. Other information

Solid content: not determined

SECTION 10: Stability and reactivity

10.1. Reactivity

flammable, Risk of ignition.

10.2. Chemical stability

Stable under recommended storage conditions.

10.3. Possibility of hazardous reactions

No dangerous reaction known under conditions of normal use.

10.4. Conditions to avoid

Heat, flames and sparks. In use, may form flammable/explosive vapour-air mixture.

10.5. Incompatible materials

No information available.

10.6. Hazardous decomposition products

None known.

SECTION 11: Toxicological information

11.1. Information on toxicological effects

Acute toxicity

Not applicable.

CAS No	Chemical name				
	Exposure route	Dose	Species	Source	Method
106-97-8	butane				
	inhalative (4 h) gas	LC50 658 ppm	rat	GESTIS	
	Hydrocarbons C6-C7, n-alkanes, isoalkanes, <5% n-hexane				
	oral	LD50 > 5840 mg/kg	rat	ECHA	
	dermal	LD50 > 2800 mg/kg	rabbit	ECHA	
	inhalative (4 h) vapour	LC50 25,2 mg/l	rat	ECHA	

Irritation and corrosivity

Irritating to skin.

Sensitising effects

No sensitization responses were observed.

Carcinogenic/mutagenic/toxic effects for reproduction

Not applicable.

STOT-single exposure

Vapours may cause drowsiness and dizziness.

Aspiration hazard

Not applicable.



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Additional information on tests

Handle in accordance with good industrial hygiene and safety practice. Other dangerous properties can not be excluded.

SECTION 12: Ecological information

12.1. Toxicity

Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

CAS No	Chemical name					
	Aquatic toxicity	Dose	[h] [d]	Species	Source	Method
	Hydrocarbons C6-C7, n-alkanes, isoalkanes, <5% n-hexane					
	Acute fish toxicity	LC50	11,4 mg/l	96 h	Oncorhynchus mykiss (rainbow trout)	ECHA
	Acute algae toxicity	ErC50	30 mg/l	72 h	Pseudokirchnerella subcapitata	ECHA
	Acute crustacea toxicity	EC50	3 mg/l	48 h	Daphnia magna (Water flea)	ECHA
110-54-3	n-hexane					
	Acute fish toxicity	LC50	2,5 mg/l	96 h	Pimephales promelas	Geiger et al. 1990

12.2. Persistence and degradability

No data is available on the product itself.

12.3. Bioaccumulative potential

No data is available on the product itself.

Partition coefficient n-octanol/water

CAS No	Chemical name	Log Pow
106-97-8	butane	2,89
110-54-3	n-hexane	3,9

12.4. Mobility in soil

No data is available on the product itself.

12.5. Results of PBT and vPvB assessment

No data is available on the product itself.

12.6. Other adverse effects

no data available

Further information

Do not flush into surface water or sanitary sewer system. Avoid subsoil penetration.

SECTION 13: Disposal considerations

13.1. Waste treatment methods

Advice on disposal

Do not flush into surface water or sanitary sewer system. Dispose of in accordance with the European Directives on waste and hazardous waste. In accordance with local and national regulations.

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



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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

Contaminated packaging

S56 - Dispose of this material and its container to hazardous or special waste collection point. Offer rinsed packaging material to local recycling facilities.
Also after use, do not open with force or burn.

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: -
Hazard label: 2.1



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

Other applicable information (land transport)
E0

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

Other applicable information (inland waterways transport)
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

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

Other applicable information (marine transport)
E0

Air transport (ICAO-TI/IATA-DGR)

14.1. UN number: UN 1950
14.2. UN proper shipping name: AEROSOLS, flammable
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
IATA-packing instructions - Passenger: 203
IATA-max. quantity - Passenger: 75 kg
IATA-packing instructions - Cargo: 203
IATA-max. quantity - Cargo: 150 kg

Other applicable information (air transport)
E0
: Y203

14.5. Environmental hazards

ENVIRONMENTALLY HAZARDOUS: yes



Danger releasing substance: Hydrocarbons C6-C7, n-alkanes, isoalkanes, <5% n-hexane

14.6. Special precautions for user

Warning: Risk of ignition. (aerosol)

14.7. Transport in bulk according to Annex II of Marpol and the IBC Code

not applicable

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: n-hexane
Entry 28: butane; isobutane
Entry 57: cyclohexane

2004/42/EC (VOC): 87,922 % (538,959 g/l)

Additional information

850/2004/EC, 79/117/EEC, 689/2008/EC, 2008/47/EC

National regulatory information



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Employment restrictions: Observe restrictions to employment for juvenils according to the 'juvenile work protection guideline' (94/33/EC).

Water contaminating class (D): 2 - clearly water contaminating

15.2. Chemical safety assessment

Chemical safety assessments for substances in this mixture were not carried out.

SECTION 16: Other information

Abbreviations and acronyms

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
LC50: Lethal concentration, 50%
LD50: Lethal dose, 50%

Relevant H and EUH statements (number and full text)

H220 Extremely flammable gas.
H222 Extremely flammable aerosol.
H225 Highly flammable liquid and vapour.
H229 Pressurised container: May burst if heated.
H280 Contains gas under pressure; may explode if heated.
H304 May be fatal if swallowed and enters airways.
H315 Causes skin irritation.
H336 May cause drowsiness or dizziness.
H361f Suspected of damaging fertility.
H373 May cause damage to organs through prolonged or repeated exposure.
H400 Very toxic to aquatic life.
H410 Very toxic to aquatic life with long lasting effects.
H411 Toxic to aquatic life with long lasting effects.

Further Information

The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text.

End of Safety Data Sheet

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