

# SAFETY DATA SHEET

According to Regulation (EC) 1907/2006 and Regulation (EC) 453/2010 (REACH)

Version: 2.0

## BREMSEN SPEZIAL REINIGER

Revision date: 30.01.2015

### 1. Identification of the substance/mixture and of the company/undertaking

#### 1.1. Product identifier:

Trade name: **Bremsen Spezial Reiniger (Art. No. 2110, 8104203)**

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

Use of the substance

/Mixture: cleaner agent

#### 1.3. Details of the supplier of the safety data sheet:

FOLIATEC Böhm GmbH & Co

Vertriebs KG

Neumeyerstr. 70

D - 90411 Nürnberg

Tel: 0049911975440

Fax: 004991197544366

Website: www.foliatec.de

#### 1.4. Emergency telephone number:

+49 - 91 19 75 44 - 0

(monday to friday, 08:00 – 17:00 o'clock )

### 2. Hazard identification

#### 2.1. Classification of the substance or mixture:

##### Classification (EC) 1272/2008

Aerosol 1; H222, H229

Skin Irrit. 2; H315

STOT SE 3; H336

Aquatic Chronic 2; H411

##### Classification (67/548/EEC, 1999/45/EC)

F+; R12

Xi; R38

R67

N; R51/53

#### 2.2. Label elements:

##### Label elements (CLP)



Signal word: Danger

##### Hazard statements:

H222 Extremely flammable aerosol.

H229 Pressurized container: May burst if heated.

H315 Causes skin irritation.

H336 May cause drowsiness or dizziness.

H411 Toxic to aquatic life with long lasting effects.

##### Precautionary statements:

P102 Keep out of reach of children.

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.

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P302 + P352 IF ON SKIN: Wash with plenty of water/...  
P304 + P340 IF INHALED: Remove person to fresh air and keep comfortable for breathing.  
P410 + P412 Protect from sunlight. Do not expose to temperatures exceeding 50 °C/122°F.  
P501 Dispose of contents/container to accordance with local / regional / national / international regulations.

Contains: Hydrocarbons, C7, n-alkanes, iso-alkanes, cyclic

Text for labelling:

Contain: > 30% aliphatic hydrocarbons

### 2.3. Other hazards:

No data available.

### 3. Composition/information on ingredients

Substance:

Mixture:

Chemical name:	Content (% m/m):	CAS: EC: Index:	Classification (67/548/EC):	Classification (1272/2008/EC):
Hydrocarbons, C7, n-alkanes, iso-alkanes, cyclic	50 – 100	/ 927-510-4 /	F; R11, Xn; R65, Xi; R38, R67, N; R51/53	Flam. Liq. 2; H225, Asp. Tox. 1; H304, Skin Irrit. 2; H315, STOT SE 3; H336, Aquatic Chronic 2; H411
Acetone	2,5 - 10	67-64-1 200-827-9 649-328-00-1	F; R11, Xi; R36, R66-67	Flam. Liq. 2; H225, Eye Irrit. 2; H319, STOTE SE 3; H336
Carbon dioxide	2,5 – 10	124-38-9 204-696-9 /	/	Press. Gass: H280
Propane	2,5 – 10	74-98-6 200-827-9 601-003-00-5	F+; R12	Flam. Gas. 1; H220, Press. Gass; H280
Isobutane	2,5 – 10	75-28-5 200-857-2 601-004-00-0	F+; R12	Flam. Gas. 1; H220, Press. Gass; H280

### 4. First aid measures

#### 4.1. Description of first measures:

General advice:

If inhaled remove to fresh air. If rapid recovery does not occur, transport to nearest medical facility for additional treatment.

In case of skin contact remove contaminated clothing. Flush exposed area with water and follow by washing with soap if available.

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- In case of eye contact Flush eyes with water while holding eyelids open. Rest eyes for 30 minutes. If redness, burning, blurred vision, or swelling persist, transport to the nearest medical facility for additional treatment.
- If swallowed If swallowed, do not induce vomiting; transport to nearest medical facility for additional treatment. If vomiting occurs spontaneously, keep head below hips to prevent aspiration.

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

Drowsiness and dizziness. Irritation and dermatitis, weakness.

### 4.3. Identification of any immediate medical attention and special treatment needed:

No data available.

## 5. Firefighting measures

### 5.1. Extinguishing media:

Suitable extinguishing media: Foam, water spray or fog. Dry chemical powder, carbon dioxide.

Unsuitable extinguishing media: Water jet.

### 5.2. Special hazards arising from the substance or mixture:

Specific hazards during firefighting: Exposure to decomposition products may cause health problems. Possible in case of fire / high temperatures the formation of hazardous / toxic fumes.

### 5.3. Advice for firefighters:

Special protective equipment for firefighters: In the event of fire, self-contained breathing apparatus. Personal protective equipment.

Other information: Standard procedure for chemical fires. Fighting measures that suit the environment. Explosion and fire fumes do not breathe. Use water spray to cool unopened containers. Collect contaminated firefighting water separately, do not empty into drains. Fire residues and contaminated firefighting water must be disposed in according to local regulations. Pay attention to flashback. Because of the high vapor pressure when heated bursting of the vessels.

## 6. Accidental release measures

### 6.1. Personal precautions, protective equipment and emergency procedures:

Refer to protective measures listed in sections 7 and 8 Personal protective equipment. Remove all sources of ignition. Avoid contact with eyes and skin. Ensure adequate ventilation, especially in confined spaces. Personnel evacuate immediately to safe place. Avoid inhalation of vapors or mists. Beware against vapors accumulating to form explosive concentrations, beware. Vapors may accumulate in low lying areas.

### 6.2. Environmental precautions:

Do not flush into surface water or sanitary sewer. Prevent further leakage or spillage if possible without risk. If the product contaminates rivers and lakes or drains inform respective authorities.

### 6.3. Methods and material for containment and cleaning up:

Contain spilled liquid with sand, earth or other suitable absorbents. Recover free liquid in suitable containers. Clean contaminated area. Dispose of according to local regulations.

### 6.4. Reference to other sections:

See section: 7, 8, 11, 12 and 13.

## 7. Handling and storage

### 7.1. Precautions for safe handling:

Advice on safe handling: Inventory levels at the workplace must be restricted. Use only in well ventilated areas. Vapors and spray mists. Avoid contact with eyes and skin. Do not spray on a naked flame or any incandescent material. Prevent the creation of flammable or explosive concentrations of vapor in air and avoid vapor exposure limits. Measures against electrostatic discharges. Personal protective equipment see section 8

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Advice on protection against fire and explosion Normal measures for preventive fire protection. Vapors are heavier than air and may spread along floors. Vapors may form explosive mixtures with air. Keep away from heat and ignition sources. Do not smoke. Sparking tools. Electrical equipment should be protected to the appropriate standards.

### 7.2. Conditions for safe storage, including any incompatibilities:

Requirements for storage areas and containers: Store in original container. CAUTION: Aerosol are under pressure. Keep away from direct sunlight and temperatures above 50 ° C. Do not apply force or throw into fire even after use. Do not spray on flames or red-hot objects. Keep container tightly closed in a dry, cool and well ventilated place. Storage regulations for aerosols!

Storage class: 2B, Aerosols

### 7.3. Specific end use(s):

No data available.

## 8. Exposure controls/personal protection

### 8.1. Control parameters:

#### 8.1.1. Limits for occupational exposure

Components	CAS-No.	Control parameters		Excess factor	Base
		ml/m <sup>3</sup> (ppm)	mg/m <sup>3</sup>		
Hydrocarbons, C7, n-alkanes, iso-alkanes, cyclic	/	200	1.000	4	
Acetone	67-64-1	500	1.210		
Carbon dioxide	124-38-9	5.000	9.000		
Propane	74-98-6	1.000	1.800	4	
Isobutane	75-28-5	1.000	2.400	4	

#### 8.1.2. DNEL-and PNEC-values

Substance	Type	Type of exposure	Exposure time	Value
Hydrocarbons, C7, n-alkanes, iso-alkanes, cyclic	DNEL (workers)	inhalation	Long term exposure – systemic effects	2085 mg/m <sup>3</sup>
Hydrocarbons, C7, n-alkanes, iso-alkanes, cyclic	DNEL (workers)	dermal	Long term exposure – systemic effects	300 mg/kg bw/day
Hydrocarbons, C7, n-alkanes, iso-alkanes, cyclic	DNEL (consumer)	inhalation	Long term exposure – systemic effects	447 mg/m <sup>3</sup>
Hydrocarbons, C7, n-alkanes, iso-alkanes, cyclic	DNEL (consumer)	dermal	Long term exposure – systemic effects	149 mg/kg bw/day
Propan-2-ol	DNEL (consumer)	oral	Long term exposure – systemic effects	26 mg/kg bw/day
Propan-2-ol	PNEC	fresh water		140,9 mg/l
Propan-2-ol	PNEC	marine water		140,9 mg/l
Propan-2-ol	PNEC	water (intermittent releases)		140,9 mg/l
Propan-2-ol	PNEC	STP		2251 mg/l
Propan-2-ol	PNEC	sediment (freshwater)		552 mg/kg sed. dw
Propan-2-ol	PNEC	sediment (marine water)		552 mg/kg sed. dw
Propan-2-ol	PNEC	soil		28 mg/kg soil dw
Propan-2-ol	PNEC	oral		160 mg/kg food
Acetone	DNEL (workers)	inhalation	Long term exposure – systemic effects	1210 mg/m <sup>3</sup>

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Acetone	DNEL (workers)	Inhalation	Short term exposure – local effects	2420 mg/m <sup>3</sup>
Acetone	DNEL (workers)	dermal	Long term exposure – systemic effects	186 mg/kg
Acetone	DNEL (consumer)	inhalation	Long term exposure – systemic effects	200 mg/m <sup>3</sup>
Acetone	DNEL (consumer)	dermal	Long term exposure – systemic effects	62 mg/kg
Acetone	DNEL (consumer)	oral	Long term exposure – systemic effects	62 mg/kg
Acetone	PNEC	fresh water		10,6 mg/l
Acetone	PNEC	marine water		1,06 mg/l
Acetone	PNEC	water (intermittent releases)		21 mg/l
Acetone	PNEC	STP		100 mg/l
Acetone	PNEC	sediment (freshwater)		30,04 mg/kg se. dw
Acetone	PNEC	sediment (marine water)		3,04 mg/kg se. dw
Acetone	PNEC	soil		29,5 mg/kg se. dw

### 8.2. Exposure controls:

#### Technical protective equipment:

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

#### Personal protective equipment:

##### Respiratory protection:

At concentrations above the exposure limit they must use respiratory protection. Respirator with combination filter for particles and vapors (EN 141). Respirator with A filter.

##### Hand protection:

The glove material has to be impermeable and resistant to the product/ the substance/ the preparation. Due to missing tests no recommendation to the glove material can be given for the product/ the preparation/the chemical mixture.

##### Eye protection:

Tightly fitting safety goggles.

##### Protective clothing:

Flame retardant antistatic protective clothing. Choose body protection according to the amount and concentration of the hazardous substance at the workplace.

##### Hygien measures:

Handle with good industrial hygiene and safety practice. General industrial hygiene measures. Do not breathe spray. Contact with skin, eyes and clothing. When using do not eat, drink or smoke. Wash hands before breaks and after work. Skin protection plan note. Wash contaminated clothing before reuse.

#### Environmental exposure controls:

General advice: Do not flush into surface water or sanitary sewer. Further leakage or spillage if possible without risk. If the product contaminates rivers and lakes or drains inform respective authorities.

## 9. Physical and chemical properties

### 9.1. Information on basis physical and chemical properties:

	Value	Unit	At	Method	Notice
Appearance:	aerosol				
Color:	colorless				
Odor:	characteristic				
Flash point:	Cca. -80	°C			Isobutane
Ignition point:	56 – 110	°C			Active substance
Lower explosion limit:	1,4	Vol. %			

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Upper explosion limit:	13,00	Vol. %	
Density:	0,73	g/cm <sup>3</sup>	Active substance
Water solubility:	insoluble		
Organic solvents:	87,8	%	

### 9.2. Other information:

No data available.

## 10. Stability and reactivity

### 10.1. Reactivity:

No data available.

### 10.2. Chemical stability:

The product is chemical stable.

### 10.3. Possibility of hazardous reactions:

No decomposition if stored and applied. Vapors may form explosive mixtures with air. Because of the high vapor pressure when heated bursting of the vessels.

### 10.4. Conditions to avoid:

Heat, flames and sparks.

### 10.5. Incompatible materials:

No data available.

### 10.6. Hazardous decomposition products:

Hazardous decomposition products: Possible in case of fire / high temperatures the formation of hazardous / toxic fumes.

## 11. Toxicological information

### Acute toxicity:

#### Acute oral toxicity:

Acetone LD<sub>50</sub> > 2000 mg/kg (rat)

Hydrocarbons, C7, n-alkanes, iso-alkanes, cyclic LD<sub>50</sub> > 8 ml/kg (rat)

#### Acute inhalation toxicity:

Acetone LC<sub>50</sub> > 20 mg/kg (rat)

Hydrocarbons, C7, n-alkanes, iso-alkanes, cyclic LC<sub>50</sub> > 23,3 mg/l (rat, 4 h)

#### Acute dermal toxicity:

Acetone LD<sub>50</sub> > 2000 mg/kg (rat)

Hydrocarbons, C7, n-alkanes, iso-alkanes, cyclic LD<sub>50</sub> > 4 ml/kg (rat)

**Skin corrosion/irritation:** Cause irritation.

**Serious eye damage/eye irritation:** May cause irritation.

**Respiratory or skin sensitization:** Possible sensitization through the skin.

**Germ cell mutagenicity:** No data available

**Carcinogenicity:** No data available

**Reproductive and developmental toxicity:** No data available

**Other information:** Drowsiness and dizziness. Irritation and dermatitis, weakness.

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### 12. Ecological information

#### 12.1. Toxicity:

##### Toxicity to fish:

Acetone LC/EC/IC50 > 1000 mg/l  
Hydrocarbons, C7, n-  
alkanes, iso-alkanes,  
cyclic LL/EL/IL50 >1 - <= 10 mg/l

##### Toxicity to Daphnia:

Acetone LC/EC/IC50 > 1000 mg/l (Daphnia magna)  
Hydrocarbons, C7, n-  
alkanes, iso-alkanes,  
cyclic LL/EL/IL50 >1 - <= 10 mg/l

##### Toxicity to algae:

Hydrocarbons, C7, n-  
alkanes, iso-alkanes,  
cyclic LL/EL/IL50 >10 - <= 100 mg/l

##### Toxicity to bacteria:

Hydrocarbons, C7, n-  
alkanes, iso-alkanes,  
cyclic LL/EL/IL50 >10 - <= 100 mg/l

#### 12.2. Persistenc and degradability:

No data available.

#### 12.3. Bioaccumulative potencial:

No data available.

#### 12.4. Mobility in soil:

No data available.

#### 12.5. Results of PBT- and vPvB assesment:

No data available.

#### 12.6. Other adverse effects:

The penetration of the product into drains, water courses or the soil should be prevented.

### 13. Disposal considerations

#### 13.1. Product:

Waste key number: 160504\* = Accumulators containing certain dangerous gases in pressurized containers.  
\* = The disposal must be provided.  
Recommendation: Do not open, even after use or burn.  
Disposal according to official regulations.

#### 13.2. Packaging:

Waste key number: 150110 = Packaging containing residues of hazardous substances or  
contaminated by dangerous substances  
Recommendation: Drain thoroughly and completely as possible. Disposal according to official regulations.

### 14. Transport information

#### ADR/RID

UN number: 1950  
Product designation: AEROSOLS  
Class: 2

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Packaging group: --  
Code: 5F  
Label: 2.1  
Limited quantities: 1 L/LQ2  
Special provisions: 190 – 327 – 625  
Tunnel restriction code: (D)  
Dangerous for the environment: no

### Special precautions for user:

See section. 6, 7 and 8

## 15. Regulatory information

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

Council Directive (96/82/EC):		Quantity 1	Quantity 2
	Extremely flammable	10 t	50 t
	Dangerous for the environment	200 t	500 t
	Petroleum	2.500 t	25.000 t
VOC:	693 g/l or 97 %		

According to EU Detergents EC 648/2004: > 30% aliphatic hydrocarbons

### 15.2. Chemical safety assessment:

No data available.

## 16. Other information

### Full text of R-phrases referred to under sections 2 and 3:

R11 Highly flammable.  
R12 Extremely flammable.  
R36 Irritating to eyes.  
R38 Irritating to skin.  
R65 Harmful: May cause lung damage if swallowed.  
R67 Vapours may cause drowsiness and dizziness.  
R51/53 Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

### Full text of H-statements referred to under sections 2 and 3:

H220 Extremely flammable gas.  
H225 Highly flammable liquid and vapour.  
H280 Contains gas under pressure; may explode if heated.  
H304 May be fatal if swallowed and enters airways.  
H315 Causes skin irritation.  
H319 Causes serious eye irritation.  
H336 May cause drowsiness or dizziness.  
H411 Toxic to aquatic life with long lasting effects.

### Changes:

- Item 2
- Item 8.1
- Item 9.1
- Item 15.1