



# SAFETY DATA SHEET

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

Version: 3.0

## BREMSENREINIGER

Revision date: 02.03.2017

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

#### 1.1. Product identifier:

Trade name: **Bremsenreiniger**

#### 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:

Werkstatt-Produkte GmbH & Co. KG

Hahnerberger Str. 175

42349 Wuppertal

Tel. +49 (0) 202 - 495839-0

Fax +49 (0) 202 - 495839-10

[info@werkstatt-produkte.de](mailto:info@werkstatt-produkte.de)

[www.werkstatt-produkte.de](http://www.werkstatt-produkte.de)

#### 1.4. Emergency telephone number:

Guide to health risks:

Consult with your physician or doctor on immediately duty. In the case of life threat call +49 (0) 89 19240.

### 2. Hazard identification

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

**Classification (EC) 1272/2008**

Aerosol 1; H222, H229

Asp. Tox. 1 ;H304

Skin Irrit. 2; H315

STOT SE 3; H336

Aquatic Chronic 2; H411

#### 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.

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

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



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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 (1272/2008/EC):
Hydrocarbons, C7, n-alkanes, iso-alkanes, cyclic	50 – 100	/ 927-510-4 /	Flam. Liq. 2; H225, Asp. Tox. 1; H304, Skin Irrit. 2; H315, STOT SE 3; H336, Aquatic Chronic 2; H411
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	Flam. Gas. 1; H220, Press. Gass; H280
Isobutane	2,5 – 10	75-28-5 200-857-2 601-004-00-0	Flam. Gas. 1; H220, Press. Gass; H280

### 4. First aid measures

#### 4.1. Description of first measures:

- 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.
- 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 Not applicable.

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

No data available.

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

Symptomatic treatment.

### 5. Firefighting measures

#### 5.1. Extinguishing media:

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



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extinguishing media

### 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 vapour 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. Ensure adequate ventilation, especially in confined spaces. Personnel evacuate immediately to safe place. Avoid inhalation of vapours or mist. Himself against vapours accumulating to form explosive concentrations, beware. Vapours 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. Vapours 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 vapour in air and avoid vapour exposure limits. Measures against electrostatic discharges. Personal protective equipment see section 8

Advice on protection against fire and explosion: Normal measures for preventive fire protection. Vapours are heavier than air and may spread along floors. Vapours 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:



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### 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	
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
Hydrocarbons, C7, n-alkanes, iso-alkanes, cyclic	DNEL (consumer)	oral	Long term exposure – systemic effects	149 mg/kg bw/day

### 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 vapours (EN 141). Respirator with A filter.

##### Hand protection:

Solvent resistant protective gloves according to EN 374. Gloves material: nitrile rubber, breakthrough time (maximum wearing period):> 480 min and thickness 0.5 mm. The manufacturer of the gloves on permeability and breakthrough time must be observed.

##### 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.

##### Hygiene 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				
Colour:	colourless				
Odour:	characteristic				
Flash point:	approx. -80	°C			Isobutane



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Lower explosion limit:	1,4	Vol. %	
Upper explosion limit:	13,00	Vol. %	
Vapour pressure:	5200	hPa	20°C
Density:	0,704	g/cm <sup>3</sup>	Active substance
Water solubility:	insoluble		

### 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. Vapours may form explosive mixtures with air. Because of the high vapour pressure when heated bursting of the vessels.

### 10.4. Conditions to avoid:

Highly flammable. Keep away from sources of heat, sparks and open flames. Vapours form explosive mixtures with air, which are heavier than air. Protect from sunshine and temperatures above 50 °C.

### 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:

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

Propan-2-ol LD<sub>50</sub> > 2000 mg/kg

#### Acute inhalation toxicity:

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

Propan-2-ol LC<sub>50</sub> > 20 mg/l

#### Acute dermal toxicity:

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

Propan-2-ol LD<sub>50</sub> > 2000 mg/kg

**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



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**Reproductive and developmental toxicity:**

No data available

**Other information:**

Drowsiness and dizziness. Irritation and dermatitis, weakness.

### 12. Ecological information

**12.1. Toxicity:**

Toxicity to fish:

Hydrocarbons, C7, n-alkanes, iso-alkanes, cyclic LL/EL/IL50 >1 - <= 10 mg/l

Propan-2-ol 100 < LC/EC/IC50 <= 1000 mg/l

Toxicity to Daphnia:

Hydrocarbons, C7, n-alkanes, iso-alkanes, cyclic LL/EL/IL50 >1 - <= 10 mg/l

Propan-2-ol LC/EC/IC50 > 1000 mg/l

Toxicity to algae:

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

Propan-2-ol LC/EC/IC50 > 1000 mg/l

Toxicity to bacteria:

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

Propan-2-ol LC/EC/IC50 > 1000 mg/l

**12.2. Persistence and degradability:**

No data available.

**12.3. Bioaccumulative potential:**

No data available.

**12.4. Mobility in soil:**

No data available.

**12.5. Results of PBT- and vPvB assessment:**

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**

UN number: 1950



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Product designation: AEROSOLS  
Class: 2  
Packaging group: --  
Code: 5F  
Label: 2.1  
Limited quantities: 1 L  
Tunnel restriction code: (D)  
Dangerous for the environment: yes

### RID

UN number 1950  
Product designation: AEROSOLS  
Class: 2  
Packaging group: --  
Code: 5F  
Label: 2.1  
Hazard identification No. 23  
Limited quantities: LQ2  
Tunnel restriction code: (D)  
Environmentally hazardous: yes

### Special precautions for user:

See chapter: 6, 7 and 8

## 15. Regulatory information

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

Council Directive (2012/18/EC):		Quantity 1	Quantity 2
	P3a FLAMMABLE AEROSOLS	150 t (net)	500 t (net)
	E2 Hazardous to the Aquatic Environment in Category Chronic 2	200 t	500 t

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

VOC (Directive 1999/13/EG): VOC: 686 g/l = 97 %

### 15.2. Chemical safety assessment:

No data available.

## 16. Other information

### 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.



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H411 Toxic to aquatic life with long lasting effects.

**Changes:**

- Item 2.1
- Item 4
- Item 10.4