

## Safety data sheet

according to 1907/2006/EC, Article 31

Printing date 30.10.2017

Version number 4

Revision: 30.10.2017

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

· **1.1 Product identifier**

· Trade name: **Brake Cleaner Spray**

· Article number: PW.10.01

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

· Sector of Use SU3 Industrial uses: Uses of substances as such or in preparations at industrial sites

SU21 Consumer uses: Private households / general public / consumers

SU22 Professional uses: Public domain (administration, education, entertainment, services, craftsmen)

· Product category PC35 Washing and cleaning products (including solvent based products)

· Process category PROC7 Industrial spraying  
PROC11 Non industrial spraying

· **Application of the substance / the mixture**

Cleaner solvent

· **1.3 Details of the supplier of the safety data sheet**

· Manufacturer/Supplier: Putoline Oil  
Dollegoorweg 15  
NL-7602 EC ALMELO  
Tel.: +31 (0)546 818165

· **Further information obtainable from:**

Product safety department - vib@putoline.com

· **1.4 Emergency telephone number:**

+31 (0)546 818165 (9 AM to 4 PM, Monday to Friday)

NL - National Poison Information Centre (NVIC):

Tel.nr.: +31 30 - 2748888 - Only for the purpose of informing medical personnel in case of acute intoxications.

### \* SECTION 2: Hazards identification

· **2.1 Classification of the substance or mixture**

· **Classification according to Regulation (EC) No 1272/2008**



GHS02 flame

Aerosol 1 H222-H229 Extremely flammable aerosol. Pressurised container: May burst if heated.



GHS09 environment

Aquatic Chronic 2 H411 Toxic to aquatic life with long lasting effects.



GHS07

Skin Irrit. 2 H315 Causes skin irritation.

STOT SE 3 H336 May cause drowsiness or dizziness.

Asp. Tox. 1 H304 May be fatal if swallowed and enters airways.

· **2.2 Label elements**

· **Labelling according to**

**Regulation (EC) No 1272/2008**

The product is classified and labelled according to the CLP regulation.

· **Hazard pictograms**



GHS02

GHS07

GHS09

· **Signal word**

Danger

· **Hazard-determining components of labelling:**

Hydrocarbons, C6-C7, n-alkanes, isoalkanes, cyclics, <5% n-hexane pentane

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- **Hazard statements**
  - H222-H229 Extremely flammable aerosol. Pressurised 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**
  - P101 If medical advice is needed, have product container or label at hand.
  - 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.
  - P271 Use only outdoors or in a well-ventilated area.
  - P304+P340 IF INHALED: Remove person to fresh air and keep comfortable for breathing.
  - P405 Store locked up.
  - P410+P412 Protect from sunlight. Do not expose to temperatures exceeding 50 °C/122 °F.
  - P501 Dispose of contents/container in accordance with local/regional/national/international regulations.
- **2.3 Other hazards**
- **Results of PBT and vPvB assessment**
- **PBT:** Not applicable.
- **vPvB:** Not applicable.

**SECTION 3: Composition/information on ingredients**

- **3.2 Mixtures**
- **Description:** Active substance with propellant

· <b>Dangerous components:</b>		
EC number: 921-024-6 Reg.nr.: 01-2119475514-35	Hydrocarbons, C6-C7, n-alkanes, isoalkanes, cyclics, <5% n-hexane ⚠ Flam. Liq. 2, H225; ⚠ Asp. Tox. 1, H304; ⚠ Aquatic Chronic 2, H411; ⚠ Skin Irrit. 2, H315; STOT SE 3, H336	50 -100%
CAS: 109-66-0 EINECS: 203-692-4 Reg.nr.: 01-2119459286-30	pentane ⚠ Flam. Liq. 1, H224; ⚠ Asp. Tox. 1, H304; ⚠ Aquatic Chronic 2, H411; ⚠ STOT SE 3, H336	10 - <25%
CAS: 106-97-8 EINECS: 203-448-7 Reg.nr.: 01-2119474691-32	butane ⚠ Flam. Gas 1, H220; Press. Gas C, H280	2.5- <10%
CAS: 74-98-6 EINECS: 200-827-9 Reg.nr.: 01-2119486944-21	propane ⚠ Flam. Gas 1, H220; Press. Gas C, H280	2.5- <10%
CAS: 64-17-5 EINECS: 200-578-6	ethanol ⚠ Flam. Liq. 2, H225	2.5- <10%
CAS: 67-63-0 EINECS: 200-661-7 Reg.nr.: 01-2119457558-25	propan-2-ol ⚠ Flam. Liq. 2, H225; ⚠ Eye Irrit. 2, H319; STOT SE 3, H336	0.1 - <1%

· **Regulation (EC) No 648/2004 on detergents / Labelling for contents**

aliphatic hydrocarbons	≥30%
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- **Additional information:** For the wording of the listed hazard phrases refer to section 16.

**SECTION 4: First aid measures**

- **4.1 Description of first aid measures**
- **General information:** Immediately remove any clothing soiled by the product.
- **After inhalation:** In case of unconsciousness place patient stably in side position for transportation.
- **After skin contact:** Immediately rinse with water.
- **After eye contact:** Rinse opened eye for several minutes under running water.
- **After swallowing:** Do not induce vomiting; call for medical help immediately.
- **4.2 Most important symptoms and effects, both acute and delayed**
  - No further relevant information available.
- **4.3 Indication of any immediate medical attention and special treatment needed**
  - If swallowed or in case of vomiting, danger of entering the lungs.

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## SECTION 5: Firefighting measures

- **5.1 Extinguishing media**
- **Suitable extinguishing agents:** CO<sub>2</sub>, dry chemical, or foam. Water can be used to cool and protect exposed material.
- **For safety reasons unsuitable extinguishing agents:** Water with full jet
- **5.2 Special hazards arising from the substance or mixture** Formation of toxic gases is possible during heating or in case of fire.
- **5.3 Advice for firefighters**
- **Protective equipment:** Wear self-contained respiratory protective device.  
Wear fully protective suit.

## SECTION 6: Accidental release measures

- **6.1 Personal precautions, protective equipment and emergency procedures** Wear protective equipment. Keep unprotected persons away.
- **6.2 Environmental precautions:** Do not allow product to reach sewage system or any water course. Inform respective authorities in case of seepage into water course or sewage system.  
Do not allow to enter sewers/ surface or ground water.
- **6.3 Methods and material for containment and cleaning up:** Dispose contaminated material as waste according to item 13. Ensure adequate ventilation.  
Remove from the water surface (e.g. skim or suck off).
- **6.4 Reference to other sections** See Section 7 for information on safe handling.  
See Section 8 for information on personal protection equipment.  
See Section 13 for disposal information.

## SECTION 7: Handling and storage

- **7.1 Precautions for safe handling** Ensure good ventilation/exhaustion at the workplace.
- **Information about fire - and explosion protection:** Do not spray onto a naked flame or any incandescent material.  
Keep ignition sources away - Do not smoke.  
Pressurised container: protect from sunlight and do not expose to temperatures exceeding 50 °C, i.e. electric lights. Do not pierce or burn, even after use.
- **7.2 Conditions for safe storage, including any incompatibilities**
- **Storage:**
- **Requirements to be met by storerooms and receptacles:** Observe official regulations on storing packagings with pressurised containers.
- **Information about storage in one common storage facility:** Not required.
- **Further information about storage conditions:** Keep container tightly sealed.
- **7.3 Specific end use(s)** No further relevant information available.

## \* SECTION 8: Exposure controls/personal protection

- **Additional information about design of technical facilities:** No further data; see item 7.

### · 8.1 Control parameters

· <b>Ingredients with limit values that require monitoring at the workplace:</b>	
<b>64-17-5 ethanol</b>	
WEL	Long-term value: 1920 mg/m <sup>3</sup> , 1000 ppm
<b>67-63-0 propan-2-ol</b>	
WEL	Short-term value: 1250 mg/m <sup>3</sup> , 500 ppm Long-term value: 999 mg/m <sup>3</sup> , 400 ppm

- **Additional information:** The lists valid during the making were used as basis.

### · 8.2 Exposure controls

- **Personal protective equipment:**
- **General protective and hygienic measures:**

Keep away from foodstuffs, beverages and feed.  
Immediately remove all soiled and contaminated clothing  
Avoid contact with the skin.  
Avoid contact with the eyes and skin.

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- Respiratory protection:
- Protection of hands:

Filter AX/P2



Wear gloves for the protection against chemicals according to EN 374.

Selection of the glove material on consideration of the penetration times, rates of diffusion and the degradation  
Solvent resistant gloves

- Material of gloves

Nitrile rubber, NBR

Recommended thickness of the material:  $\geq 0.35$  mm

The selection of the suitable gloves does not only depend on the material, but also on further marks of quality and varies from manufacturer to manufacturer. As the product is a preparation of several substances, the resistance of the glove material can not be calculated in advance and has therefore to be checked prior to the application.

- Penetration time of glove material

For continuous contact we recommend gloves with breakthrough time of more than 240 minutes with preference for > 480 minutes where suitable gloves can be identified. For short-term/splash protection we recommend the same, but recognise that suitable gloves offering this level of protection may not be available and in this case a lower breakthrough time may be acceptable so long as appropriate maintenance and replacement regimes are followed. Glove thickness is not a good predictor of glove resistance to a chemical as it is dependent on the exact composition of the glove material. breakthrough time may be acceptable so long as appropriate maintenance and replacement regimes are followed. Glove thickness is not a good predictor of glove resistance to a chemical as it is dependent on the exact composition of the glove material.

The exact break trough time has to be found out by the manufacturer of the protective gloves and has to be observed.

- Eye protection:

Not required.

- Body protection:

Protective work clothing

## \* SECTION 9: Physical and chemical properties

- 9.1 Information on basic physical and chemical properties

- General Information

- Appearance:

Form: Aerosol  
Colour: According to product specification

- Odour: Characteristic

- Change in condition

Melting point/freezing point: Undetermined.

Initial boiling point and boiling range: -44.5 °C

- Flash point:

-97 °C

- Flammability (solid, gas):

Not applicable.

- Ignition temperature:

&gt;200 °C

- Auto-ignition temperature:

Product is not selfigniting.

- Explosive properties:

Product is not explosive. However, formation of explosive air/vapour mixtures are possible.

- Explosion limits:

Lower: 0.8 Vol %

Upper: 15 Vol %

- Vapour pressure at 20 °C:

573 hPa

- Density at 20 °C:

0.67 g/cm<sup>3</sup>

- Solubility in / Miscibility with water at 20 °C:

5 g/l

- Partition coefficient: n-octanol/water: Not determined.

- Solvent content:

Organic solvents: 100.0 %

- 9.2 Other information

No further relevant information available.

## SECTION 10: Stability and reactivity

- 10.1 Reactivity

No further relevant information available.

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- **10.2 Chemical stability**
- **Thermal decomposition / conditions to be avoided:** No decomposition if used according to specifications.
- **10.3 Possibility of hazardous reactions** Reacts with strong oxidising agents.
- **10.4 Conditions to avoid** No further relevant information available.
- **10.5 Incompatible materials:** No further relevant information available.
- **10.6 Hazardous decomposition products:** No dangerous decomposition products known.

## SECTION 11: Toxicological information

- **11.1 Information on toxicological effects**
- **Acute toxicity** Based on available data, the classification criteria are not met.

### · **LD/LC50 values relevant for classification:**

#### Hydrocarbons, C6-C7, n-alkanes, isoalkanes, cyclics, <5% n-hexane

Oral	LD50	>5840 mg/kg (rat)
Dermal	LD50	>2920 mg/kg (rabbit)
Inhalative	LC50 (4 h)	>25 mg/l (rat)

- **Primary irritant effect:**
- **Skin corrosion/irritation** Causes skin irritation.
- **Serious eye damage/irritation** Based on available data, the classification criteria are not met.
- **Respiratory or skin sensitisation** Based on available data, the classification criteria are not met.
- **CMR effects (carcinogenicity, mutagenicity and toxicity 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** May cause drowsiness or dizziness.
- **STOT-repeated exposure** Based on available data, the classification criteria are not met.
- **Aspiration hazard** May be fatal if swallowed and enters airways.

## SECTION 12: Ecological information

### · **12.1 Toxicity**

#### · **Aquatic toxicity:**

##### 109-66-0 pentane

EC50 (48 h)	>5 mg/l (daphnia)
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- **12.2 Persistence and degradability** No further relevant information available.
- **Other information:** The product is not easily biodegradable.
- **12.3 Bioaccumulative potential** No further relevant information available.
- **12.4 Mobility in soil** No further relevant information available.
- **Ecotoxicological effects:**
- **Remark:** Toxic for fish
- **Additional ecological information:**
- **General notes:** Water hazard class 2 (German Regulation) (Self-assessment): hazardous for water  
Do not allow product to reach ground water, water course or sewage system.  
Danger to drinking water if even small quantities leak into the ground.  
Also poisonous for fish and plankton in water bodies.  
Toxic for aquatic organisms
- **12.5 Results of PBT and vPvB assessment**
- **PBT:** Not applicable.
- **vPvB:** Not applicable.
- **12.6 Other adverse effects** No further relevant information available.

## SECTION 13: Disposal considerations

- **13.1 Waste treatment methods**
- **Recommendation** Must not be disposed together with household garbage. Do not allow product to reach sewage system.
- **Uncleaned packaging:**
- **Recommendation:** Disposal must be made according to official regulations.

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## SECTION 14: Transport information

<ul style="list-style-type: none"> <li>· 14.1 UN-Number</li> <li>· ADR/ADN, IMDG, IATA</li> </ul>	UN1950
<ul style="list-style-type: none"> <li>· 14.2 UN proper shipping name</li> <li>· ADR/ADN</li> <li>· IMDG</li> <li>· IATA</li> </ul>	1950 AEROSOLS, ENVIRONMENTALLY HAZARDOUS AEROSOLS (Hydrocarbons, C6-C7, n-alkanes, isoalkanes, cyclics, <5% n-hexane, PENTANES), MARINE POLLUTANT AEROSOLS, flammable
<ul style="list-style-type: none"> <li>· 14.3 Transport hazard class(es)</li> <li>· ADR/ADN</li> </ul>	<div style="display: flex; align-items: center; gap: 10px;">   </div> <ul style="list-style-type: none"> <li>· Class</li> <li>· Label</li> </ul>
<ul style="list-style-type: none"> <li>· IMDG</li> </ul>	<div style="display: flex; align-items: center; gap: 10px;">   </div> <ul style="list-style-type: none"> <li>· Class</li> <li>· Label</li> </ul>
<ul style="list-style-type: none"> <li>· IATA</li> </ul>	<div style="display: flex; align-items: center; gap: 10px;">  </div> <ul style="list-style-type: none"> <li>· Class</li> <li>· Label</li> </ul>
<ul style="list-style-type: none"> <li>· 14.4 Packing group</li> <li>· ADR/ADN, IMDG, IATA</li> </ul>	Void
<ul style="list-style-type: none"> <li>· 14.5 Environmental hazards:</li> <li>· Marine pollutant:</li> <li>· Special marking (ADR/ADN):</li> </ul>	Product contains environmentally hazardous substances: Hydrocarbons, C6-C7, n-alkanes, isoalkanes, cyclics, <5% n-hexane Yes Symbol (fish and tree) Symbol (fish and tree)
<ul style="list-style-type: none"> <li>· 14.6 Special precautions for user</li> <li>· Danger code (Kemler):</li> <li>· EMS Number:</li> <li>· Stowage Code</li> <li>· Segregation Code</li> </ul>	Warning: Gases. - F-D,S-U SW1 Protected from sources of heat. SW22 For AEROSOLS with a maximum capacity of 1 litre: Category A. For AEROSOLS with a capacity above 1 litre: Category B. For WASTE AEROSOLS: Category C, Clear of living quarters. SG69 For AEROSOLS with a maximum capacity of 1 litre: Segregation as for class 9. Stow "separated from" class 1 except for division 1.4. For AEROSOLS with a capacity above 1 litre: Segregation as for the appropriate subdivision of class 2. For WASTE AEROSOLS: Segregation as for the appropriate subdivision of class 2.
<ul style="list-style-type: none"> <li>· 14.7 Transport in bulk according to Annex II of Marpol and the IBC Code</li> </ul>	Not applicable.
<ul style="list-style-type: none"> <li>· Transport/Additional information:</li> </ul>	
<ul style="list-style-type: none"> <li>· ADR/ADN</li> <li>· Limited quantities (LQ)</li> </ul>	1L

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· Excepted quantities (EQ)	Code: E0 Not permitted as Excepted Quantity
· Transport category	2
· Tunnel restriction code	D
<hr/>	
· IMDG	
· Limited quantities (LQ)	1L
· Excepted quantities (EQ)	Code: E0 Not permitted as Excepted Quantity
· UN "Model Regulation":	UN 1950 AEROSOLS, 2.1, ENVIRONMENTALLY HAZARDOUS

## SECTION 15: Regulatory information

- **15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture**
- Directive 2012/18/EU
- Named dangerous substances
  - ANNEX I None of the ingredients is listed.
- Seveso category P3a FLAMMABLE AEROSOLS  
E2 Hazardous to the Aquatic Environment
- Qualifying quantity (tonnes) for the application of lower-tier requirements 150 t
- Qualifying quantity (tonnes) for the application of upper-tier requirements 500 t
- REGULATION (EC) No 1907/2006 ANNEX XVII Conditions of restriction: 3
- National regulations:
- VOC-EU 669.0 g/l
- Waterhazard class: Water hazard class 2 (Self-assessment): hazardous for water.
- **15.2 Chemical safety assessment:** A Chemical Safety Assessment has not been carried out.

## SECTION 16: Other information

This information is based on our present knowledge. However, this shall not constitute a guarantee for any specific product features and shall not establish a legally valid contractual relationship.

- **Relevant phrases**
  - H220 Extremely flammable gas.
  - H224 Extremely flammable liquid and vapour.
  - 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.
- **Department issuing SDS:** Product safety department.
- **Contact:** Product safety department
- **Abbreviations and acronyms:**
  - RID: Règlement international concernant le transport des marchandises dangereuses par chemin de fer (Regulations Concerning the International Transport of Dangerous Goods by Rail)
  - ICAO: International Civil Aviation Organisation
  - 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 Harmonised 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 (division of the American Chemical Society)
  - LC50: Lethal concentration, 50 percent
  - LD50: Lethal dose, 50 percent
  - PBT: Persistent, Bioaccumulative and Toxic
  - vPvB: very Persistent and very Bioaccumulative
  - Flam. Gas 1: Flammable gases – Category 1
  - Aerosol 1: Aerosols – Category 1
  - Press. Gas C: Gases under pressure – Compressed gas
  - Flam. Liq. 1: Flammable liquids – Category 1
  - Flam. Liq. 2: Flammable liquids – Category 2
  - Skin Irrit. 2: Skin corrosion/irritation – Category 2
  - Eye Irrit. 2: Serious eye damage/eye irritation – Category 2
  - STOT SE 3: Specific target organ toxicity (single exposure) – Category 3

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Asp. Tox. 1: Aspiration hazard – Category 1

Aquatic Chronic 2: Hazardous to the aquatic environment - long-term aquatic hazard – Category 2

**· Sources**

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\* Data compared to the previous version altered.