

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















- **Product identifier**
- **Trade name:** **POWER BRAKE CLEAN SPRAY**
- **Application of the substance / the preparation** Brake cleaner
- **Details of the supplier of the safety data sheet**
- **Manufacturer/Supplier:**
 BUCHER AG LANGENTHAL
 MOTOREX-Schmiertechnik
 Bern-Zürich-Strasse 31
 CH-4901 Langenthal
 SWITZERLAND
msds@motorex.com

 Lube-Tech
 Lubrication Technologies, Inc.
 900 Mendelssohn Avenue North
 US-55427 Golden Valley, Minnesota
 Phone: 001 763 417 1357
- **Information department:** Product safety service
- **Emergency telephone number:**
 USA + Kanada: 1 800 424 9300 (Chemtrec Chemical Manufacturers Association, Arlington, VA 22209)

2 Composition/information on ingredients

- **Chemical characterization:** Mixtures
- **Description:** Mixture of the substances listed below with nonhazardous additions.

· Dangerous components:

64742-49-0	Naphtha (petroleum), hydrotreated light	50-70%
	 H225;  H304;  H411;  H315; H336	
106-97-8	butane	10-25%
	 H220;  H280	
67-63-0	propan-2-ol	10-25%
	 H225;  H319; H336	
74-98-6	propane	3-8%
	 H220;  H280	
78-78-4	isopentane	0.1-1.5%
	 H224;  H304;  H411;  H336	

3 Hazards identification

- **Classification of the substance or mixture**



GHS02 Flame

H222 Extremely flammable aerosol.



GHS09 Environment

H411 Toxic to aquatic life with long lasting effects.

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GHS07

- H315 Causes skin irritation.
 H319 Causes serious eye irritation.
 H336 May cause drowsiness or dizziness.

• **Classification according to Directive 67/548/EEC or Directive 1999/45/EC**



Irritant

Irritating to skin.



Extremely flammable

Extremely flammable.



Dangerous for the environment

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

Vapours may cause drowsiness and dizziness.

• **Information concerning particular hazards for human and environment:**

The product has to be labelled due to the calculation procedure of international guidelines.
 Warning! Pressurized container.

• **Classification system:**

The classification was made according to the latest editions of international substances lists, and expanded upon from company and literature data.

• **Label elements**

• **Labelling according to EU guidelines:**

The product has been classified and marked in accordance with directives on hazardous materials.

• **Code letter and hazard designation of product:**



Irritant

Extremely flammable

Dangerous for the environment

• **Risk phrases:**

Extremely flammable.

Irritating to skin.

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

Vapours may cause drowsiness and dizziness.

• **Safety phrases:**

Keep out of the reach of children.

Keep away from sources of ignition - No smoking.

Do not breathe fumes.

Do not empty into drains, dispose of this material and its container at hazardous or special waste collection point.

If swallowed, seek medical advice immediately and show this container or label.

Use only in well-ventilated areas.

• **Special labelling of certain preparations:**

Pressurized 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.

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Do not spray on a naked flame or any incandescent material.

- **Classification in accordance with Directive 75/324/EEC:** Extremely flammable
- **Classification system:**
- **NFPA ratings (scale 0 - 4)**



Health = 1
Fire = 4
Reactivity = 3

- **HMIS-ratings (scale 0 - 4)**



Health = 1
Fire = 4
Reactivity = 3

4 First aid measures

- **After inhalation:**
In case of unconsciousness place patient stably in side position for transportation.
- **After skin contact:** Immediately wash with water and soap and rinse thoroughly.
- **After eye contact:**
Rinse opened eye for several minutes under running water. Then consult a doctor.
- **After swallowing:** If symptoms persist consult doctor.

5 Firefighting measures

- **Suitable extinguishing agents:** CO₂, sand, extinguishing powder. Do not use water.
- **For safety reasons unsuitable extinguishing agents:** Water with full jet
- **Special hazards arising from the substance or mixture**
No further relevant information available.
- **Protective equipment:** No special measures required.

6 Accidental release measures

- **Personal precautions, protective equipment and emergency procedures**
Wear protective equipment. Keep unprotected persons away.
- **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.
- **Methods and material for containment and cleaning up:**
Ensure adequate ventilation.
Do not flush with water or aqueous cleansing agents
- **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.

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7 Handling and storage

- **Handling:**
- **Precautions for safe handling**
Ensure good ventilation/exhaustion at the workplace.
Open and handle receptacle with care.
- **Information about protection against explosions and fires:**
Do not spray on a naked flame or any incandescent material.
Keep ignition sources away - Do not smoke.
Protect against electrostatic charges.
Pressurized 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.
- **Storage:**
- **Requirements to be met by storerooms and receptacles:**
Store in a cool location.
Observe official regulations on storing packagings with pressurized containers.
- **Information about storage in one common storage facility:** Not required.
- **Further information about storage conditions:**
Keep receptacle tightly sealed.
Do not gas tight seal receptacle.
Store in cool, dry conditions in well sealed receptacles.
Protect from heat and direct sunlight.
- **Specific end use(s)** No further relevant information available.

8 Exposure controls/personal protection

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

- **Components with limit values that require monitoring at the workplace:**

106-97-8 butane

REL	1900 mg/m ³ , 800 ppm
TLV	Varies mg/m ³ , 1000 ppm

67-63-0 propan-2-ol

PEL	980 mg/m ³ , 400 ppm
REL	Short-term value: 1225 mg/m ³ , 500 ppm Long-term value: 980 mg/m ³ , 400 ppm
TLV	Short-term value: 984 mg/m ³ , 400 ppm Long-term value: 492 mg/m ³ , 200 ppm
BEI	

74-98-6 propane

PEL	1800 mg/m ³ , 1000 ppm
REL	1800 mg/m ³ , 1000 ppm
TLV	Varies mg/m ³ , 1000 ppm

- **Additional information:** The lists that were valid during the creation were used as basis.
- **Personal protective equipment:**
- **General protective and hygienic measures:**
Keep away from foodstuffs, beverages and feed.
Immediately remove all soiled and contaminated clothing.
Wash hands before breaks and at the end of work.
Do not inhale dust / smoke / mist.
Avoid contact with the skin.
Avoid contact with the eyes and skin.

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· **Breathing equipment:**

In case of brief exposure or low pollution use respiratory filter device. In case of intensive or longer exposure use respiratory protective device that is independent of circulating air.

· **Protection of hands:**



Protective gloves

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.

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

· **Material of gloves**

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**

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

· **Eye protection:**



Tightly sealed goggles

9 Physical and chemical properties

· **General Information**

· **Appearance:**

Form: Liquefied gas

Color: Colorless

· **Odor:** Solvent-like

· **Odour threshold:** Not determined.

· **pH-value:** Not determined.

· **Change in condition**

Melting point/Melting range: Undetermined.

Boiling point/Boiling range: Not applicable, as aerosol.

· **Flash point:** < -20°C (< -4 °F)

· **Flammability (solid, gaseous):** Not applicable.

· **Ignition temperature:** 310°C (590 °F)

· **Decomposition temperature:** Not determined.

· **Auto igniting:** Product is not selfigniting.

· **Danger of explosion:** Product is not explosive. However, formation of explosive air/vapor mixtures are possible.

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· Explosion limits:	
Lower:	0.9 Vol %
Upper:	12.0 Vol %
· Vapor pressure at 20°C (68 °F):	43 hPa (32 mm Hg)
· Density at 20°C (68 °F):	0.685 g/cm ³ (5.716 lbs/gal)
· Relative density	Not determined.
· Vapour density	Not determined.
· Evaporation rate	Not applicable.
· Solubility in / Miscibility with Water:	Not miscible or difficult to mix.
· Segregation coefficient (n-octanol/water):	Not determined.
· Viscosity:	
Dynamic:	Not determined.
Kinematic:	<1 mm ² /s @ 40 °C
· Solvent content:	
Organic solvents:	99.2 %
VOC content:	99.2 %
	679.9 g/l / 5.67 lb/gl
· Other information	No further relevant information available.

10 Stability and reactivity

- **Thermal decomposition / conditions to be avoided:**
No decomposition if used according to specifications.
- **Incompatible materials:** No further relevant information available.
- **Hazardous decomposition products:** No dangerous decomposition products known.

11 Toxicological information

- **Acute toxicity:**

- **LD/LC50 values that are relevant for classification:**

64742-49-0 Naphtha (petroleum), hydrotreated light

Oral	LD50	>2000 mg/kg (rat)
Dermal	LD50	>2000 mg/kg (rat)
Inhalative	LC50/4 h	>5 mg/l (rat)

- **Primary irritant effect:**
- **on the skin:** Irritant to skin and mucous membranes.
- **on the eye:** No irritating effect.
- **Sensitization:** No sensitizing effects known.
- **Additional toxicological information:**
The product shows the following dangers according to internally approved calculation methods for preparations:
Irritant

12 Ecological information

- **Aquatic toxicity:** No further relevant information available.

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- **Persistence and degradability** No further relevant information available.
- **Behavior in environmental systems:**
- **Bioaccumulative potential** No further relevant information available.
- **Ecotoxicological effects:**
- **Remark:** Toxic for fish
- **Additional ecological information:**
- **General notes:**
 Water hazard class 1 (Self-assessment): slightly hazardous for water
 Do not allow undiluted product or large quantities of it to reach ground water, water course or sewage system.
 Also poisonous for fish and plankton in water bodies.
 Toxic for aquatic organisms

13 Disposal considerations

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

14 Transport information

- | | |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------|
| · UN-Number | UN1950 |
| · DOT, ADR, IMDG, IATA | |
| · UN proper shipping name | AEROSOLS, flammable |
| · DOT, IATA | 1950 AEROSOLS, ENVIRONMENTALLY HAZARDOUS |
| · ADR | AEROSOLS (Naphtha (petroleum), hydrotreated light, PENTANES), MARINE POLLUTANT |
| · IMDG | |
| · Transport hazard class(es) | |
| · DOT, IATA | |
|  | |
| · Class | 2.1 |
| · Label | 2.1 |
| · ADR | |
|   | |
| · Class | 2 5F Gases |

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· Label	2.1
· IMDG	
 	
· Class	2.1
· Label	2.1
· Packing group	
· DOT, ADR, IMDG, IATA	Void
· Environmental hazards:	Product contains environmentally hazardous substances: Naphtha (petroleum), hydrotreated light
· Marine pollutant:	Yes
· Special marking (ADR):	Symbol (fish and tree)
· Special precautions for user	Warning: Gases
· Danger code (Kemler):	-
· EMS Number:	F-D,S-U
· Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code	Not applicable.
· UN "Model Regulation":	UN1950, AEROSOLS, ENVIRONMENTALLY HAZARDOUS, 2.1

15 Regulatory information

· Sara
· Section 355 (extremely hazardous substances):
None of the ingredients is listed.
· Section 313 (Specific toxic chemical listings):
All ingredients are listed.
· TSCA (Toxic Substances Control Act):
All ingredients are listed.
· Proposition 65
· Chemicals known to cause cancer:
None of the ingredients is listed.
· Chemicals known to cause reproductive toxicity for females:
None of the ingredients is listed.
· Chemicals known to cause reproductive toxicity for males:
None of the ingredients is listed.
· Chemicals known to cause developmental toxicity:
None of the ingredients is listed.
· Carcinogenic categories
· EPA (Environmental Protection Agency)
None of the ingredients is listed.

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· IARC (International Agency for Research on Cancer)		
67-63-0	propan-2-ol	3
· NTP (National Toxicology Program)		
None of the ingredients is listed.		
· TLV (Threshold Limit Value established by ACGIH)		
67-63-0	propan-2-ol	A4
· NIOSH-Ca (National Institute for Occupational Safety and Health)		
None of the ingredients is listed.		
· OSHA-Ca (Occupational Safety & Health Administration)		
None of the ingredients is listed.		

· **Product related hazard informations:**

The product has been classified and marked in accordance with directives on hazardous materials.

· **Hazard symbols:**

Irritant
Extremely flammable
Dangerous for the environment

· **Risk phrases:**

Extremely flammable.

Irritating to skin.

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

Vapours may cause drowsiness and dizziness.

· **Safety phrases:**

Keep out of the reach of children.

Keep away from sources of ignition - No smoking.

Do not breathe fumes.

Do not empty into drains, dispose of this material and its container at hazardous or special waste collection point.

If swallowed, seek medical advice immediately and show this container or label.

Use only in well-ventilated areas.

· **Special labeling of certain preparations:**

Pressurized 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.

Do not spray on a naked flame or any incandescent material.

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.

· **Department issuing MSDS:** Abteilung Produktsicherheit

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