

**Brake Cleaner****1. Identification of the substance/preparation and of the company/undertaking****1.1 Identification of the substance or preparation:**

Product name : Brake Cleaner

**1.2 Use of the substance/preparation:**

Detergent

**1.3 Company/undertaking identification:**

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Everdongenlaan 18-20  
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**1.4 Emergency telephone:**

+32 14 58 45 45 (24/24 h)  
Brandweerinformatiecentrum voor Gevaarlijke Stoffen (BIG)  
Technische Schoolstraat 43 A, B-2440 Geel, Belgium

**2. Hazards identification**

- 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
- Aerosol may explode under the effect of heat

**3. Composition/information on ingredients**

Hazardous ingredients	CAS No. EINECS/ELINCS No.	Conc. (%)	Hazards (R-phrases)	Hazard symbol
low boiling point hydrogen treated naphtha (conc benzene < 0.1%)	64742-49-0 265-151-9	>25	11-38-51/53-65-67 (1) (Labelling in compliance with CONCAWE)	F+Xn;N
butane	106-97-8 203-448-7	<35	12 (1)(2)	F+
propane	74-98-6 200-827-9	<35	12 (1)(2)	F+
carbon dioxide, liquefied, under pressure	124-38-9 204-696-9	5	- (2)	-

(1) For R-phrases in full: see heading 16  
(2) Substance with a Community workplace exposure limit  
(3) PBT-substance

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# Brake Cleaner

## 4. First aid measures

- 4.1 After inhalation:**
- Remove the victim into fresh air
  - Respiratory difficulties: consult a doctor/medical service
- 4.2 Skin contact:**
- Rinse immediately with plenty of water
  - Take victim to a doctor if irritation persists
- 4.3 Eye contact:**
- Rinse with water
  - Do not apply neutralizing agents
  - Take victim to an ophthalmologist if irritation persists
- 4.4 After ingestion:**
- Rinse mouth with water
  - Do not induce vomiting
  - If you feel unwell: consult a doctor/medical service

## 5. Fire-fighting measures

- 5.1 Suitable extinguishing media:**
- Water spray
  - Polyvalent foam
  - BC powder
  - Carbon dioxide
- 5.2 Unsuitable extinguishing media:**
- No data available
- 5.3 Special exposure hazards:**
- Gas/vapour spreads at floor level: ignition hazard
  - May build up electrostatic charges: risk of ignition
  - Upon combustion CO and CO<sub>2</sub> are formed
- 5.4 Instructions:**
- Cool closed containers with water if they are exposed to the fire
  - Take account of environmentally hazardous fire-fighting water
  - Use fire-fighting water moderately and contain it
- 5.5 Special protective equipment for firefighters:**
- Heat/fire exposure: compressed air/oxygen apparatus
  - Protective clothing

## 6. Accidental release measures

- 6.1 Personal precautions:**
- See heading 8.2
- 6.2 Environmental precautions:**
- Use appropriate containment to avoid environmental contamination
  - Dam up the liquid spill
  - See heading 13
- 6.3 Methods for cleaning up:**
- Liquid spill: take up into absorbent material
  - Shovel absorbed substance in closing drums
  - Carefully collect the spill/leftovers
  - Clean contaminated surfaces with an excess of water
  - Take collected spill to manufacturer/competent authority
  - Wash clothing and equipment after handling

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## 7. Handling and storage

### 7.1 Handling:

- Observe normal hygiene standards
- Use spark-/explosionproof appliances and lighting system
- Remove contaminated clothing immediately
- Clean contaminated clothing
- Use only in well-ventilated areas

### 7.2 Storage:

- Keep out of direct sunlight
- Ventilation at floor level
- Fireproof storeroom
- Keep away from: heat sources, ignition sources

Storage temperature : < 50 °C  
Quantity limit : N.D. kg  
Storage life : 365 days  
Materials for packaging :

- suitable : aerosol dispenser

### 7.3 Specific use(s):

- See information supplied by the manufacturer for the identified use(s)

## 8. Exposure controls/Personal protection

### 8.1 Exposure limit values:

#### 8.1.1 Occupational exposure:

BUTANE:

TLV-TWA	:	mg/m <sup>3</sup>	1000	ppm
TLV-STEL	:	mg/m <sup>3</sup>	-	ppm
WEL-LTEL	:	1450 mg/m <sup>3</sup>	600	ppm
WEL-STEL	:	1810 mg/m <sup>3</sup>	750	ppm
TRGS 900	:	2400 mg/m <sup>3</sup>	1000	ppm
MAK	:	2400 mg/m <sup>3</sup>	1000	ppm
GWBNL-TGG 8 h	:	1430 mg/m <sup>3</sup>	(indicatief)	
VME-8 h	:	1900 mg/m <sup>3</sup>	800	ppm
VLE-15 min.	:	- mg/m <sup>3</sup>	-	ppm
GWBB-8 h	:	- mg/m <sup>3</sup>	1000	ppm
GWK-15 min.	:	- mg/m <sup>3</sup>	-	ppm

PROPANE:

TLV-TWA	:	mg/m <sup>3</sup>	1000	ppm
TLV-STEL	:	mg/m <sup>3</sup>	-	ppm
TRGS 900	:	1800 mg/m <sup>3</sup>	1000	ppm
MAK	:	1800 mg/m <sup>3</sup>	1000	ppm
GWBNL-TGG 8 h	:	mg/m <sup>3</sup>	(indicatief)	
GWBB-8 h	:	- mg/m <sup>3</sup>	1000	ppm
GWK-15 min.	:	- mg/m <sup>3</sup>	-	ppm

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CARBON DIOXIDE, LIQUEFIED, UNDER PRESSURE:

TLV-TWA	:	mg/m <sup>3</sup>	5000	ppm
TLV-STEL	:	mg/m <sup>3</sup>	30000	ppm
WEL-LTEL	:	mg/m <sup>3</sup>	5000	ppm
WEL-STEL	:	mg/m <sup>3</sup>	15000	ppm
TRGS 900	:	mg/m <sup>3</sup>	5000	ppm
MAK	:	mg/m <sup>3</sup>	5000	ppm
GWBNL-TGG 8 h	:	mg/m <sup>3</sup>	(wettelijk)	
VME-8 h	:	mg/m <sup>3</sup>	5000	ppm
VLE-15 min.	:	mg/m <sup>3</sup>	-	ppm
GWBB-8 h	:	mg/m <sup>3</sup>	5000	ppm
GWK-15 min.	:	mg/m <sup>3</sup>	30000	ppm
EC	:	mg/m <sup>3</sup>	5000	ppm
EC-STEL	:	mg/m <sup>3</sup>	-	ppm

## 8.1.2 Sampling methods:

- Petroleum Distillate (Naphthas)
- Petroleum Distillates fractions
- Butane
- Propane
- Carbon Dioxide
- Carbon Dioxide

NIOSH 1550  
 OSHA 48  
 OSHA CSI  
 OSHA CSI  
 NIOSH 6603  
 OSHA ID 172

## 8.2 Exposure controls:

### 8.2.1 Occupational exposure controls:

- Measure the concentration in the air regularly

#### Personal protective equipment:

##### a) Respiratory protection:

- Gas mask with filter type AX at conc. in air > exposure limit

##### b) Hand protection:

- Gloves

##### c) Eye protection:

- Protective goggles

##### d) Skin protection:

- Head/neck protection
- Protective clothing

### 8.2.2 Environmental exposure controls: see heading 6.2, 6.3 and 13

# Brake Cleaner

## 9. Physical and chemical properties

### 9.1 General information:

Appearance (at 20°C) : Aerosol  
Odour : Characteristic  
Colour : Variable in colour

### 9.2 Important health, safety and environmental information:

pH value (at 20°C) : N.D.  
Boiling point/boiling range : N.D. °C  
Flashpoint/flammability : Contains extremely flammable components  
Explosion limits (explosive properties) : N.D. vol%  
Oxidising properties : N.D.  
Vapour pressure (at 20°C) : N.D. hPa  
Vapour pressure (at 50°C) : N.D. hPa  
Relative density liquid phase (20°C) : 0.72  
Water solubility : Insoluble  
Soluble in : No data available  
Relative vapour density : N.D.  
Viscosity (at °C) : N.D. Pa.s  
Partition coefficient n-octanol/water : N.D.  
Evaporation rate :  
ratio to butyl acetate : N.D.  
ratio to ether : N.D.

### 9.3 Other information:

Melting point/melting range : N.D. °C  
Auto-ignition point : N.D. °C  
Saturation concentration : N.D. g/m<sup>3</sup>  
Specific conductivity : N.D. pS/m

## 10. Stability and reactivity

### 10.1 Conditions to avoid:

- Stable under normal conditions

### 10.2 Materials to avoid:

- Keep away from: heat sources, ignition sources

### 10.3 Hazardous decomposition products:

- Upon combustion CO and CO<sub>2</sub> are formed

## 11. Toxicological information

### 11.1 Acute toxicity:

BUTANE:

LC50 inhalation rat : 658 mg/l/4 h

PROPANE:

LC50 inhalation rat : 513 mg/l/4 h  
LC50 inhalation rat : 280000 ppm/4 h

### 11.2 Chronic toxicity:

BUTANE:

Teratogenicity (MAK) : Group D

PROPANE:

Teratogenicity (MAK) : Group D

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11.3 Routes of exposure: inhalation, eyes and skin

11.4 Acute effects/symptoms:

- **AFTER INHALATION:**
- EXPOSURE TO HIGH CONCENTRATIONS:
  - Irritation of the respiratory tract
  - Irritation of the nasal mucous membranes
  - Narcosis
- **AFTER SKIN CONTACT:**
  - Tingling/irritation of the skin
- **AFTER EYE CONTACT:**
  - Redness of the eye tissue
  - Irritation of the eye tissue

11.5 Chronic effects:

- Not listed in carcinogenicity class (IARC,EC,TLV,MAK)
- Not listed in mutagenicity class (EC,MAK)
- Not classified as toxic to reproduction (EC)

## 12. Ecological information

12.1 Ecotoxicity:

- **Effect on waste water purification** : No data available

12.2 Mobility:

- **Volatile organic compounds (VOC):** 95%
- Insoluble in water
- Substance floats in water

For other physicochemical properties see heading 9

12.3 Persistence and degradability:

- **Biodegradation BOD<sub>5</sub>** : N.D. % ThOD
- **Water** : No data available
- **Soil** : N.D. days

12.4 Bioaccumulative potential:

- **log P<sub>ow</sub>** : N.D.
- **BCF** : N.D.

12.5 Results of PBT assessment:

- Not applicable, on the basis of the available data

12.6 Other adverse effects:

- **WGK** : 2 (Classification based on the components in compliance with Verwaltungsvorschrift wassergefährdender Stoffe (VwVwS) of 17 May 1999)
- **Effect on the ozone layer** : Not dangerous for the ozone layer (1999/45/EC)
- **Greenhouse effect** : No data available

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## 13. Disposal considerations

### 13.1 Provisions relating to waste:

- Waste material code (91/689/EEC, Council Decision 2001/118/EC, O.J. L47 of 16/2/2001): 14 06 03\* (other solvents and solvent mixtures)
- LWCA (the Netherlands): KGA category 06
- Hazardous waste (91/689/EEC)
- Remove waste in accordance with local and/or national regulations

### 13.2 Disposal methods:

- Specific treatment
- Do not discharge into drains or the environment

### 13.3 Packaging:

- Waste material code packaging (91/689/EEC, Council Decision 2001/118/EC, O.J. L47 of 16/2/2001): 15 01 10\* (packaging containing residues of or contaminated by dangerous substances)

## 14. Transport information

### 14.1 Classification of the substance in compliance with UN Recommendations

UN number : 1950  
CLASS : 2.1  
SUB RISKS : -  
PACKING GROUP : -

### 14.2 ADR (transport by road)

CLASS : 2  
PACKING GROUP :  
CLASSIFICATION CODE : 5F  
DANGER LABEL TANKS : -  
DANGER LABEL PACKAGES : 2.1  
PROPER SHIPPING NAME :  
aerosols

### 14.3 RID (transport by rail)

CLASS : 2  
PACKING GROUP :  
CLASSIFICATION CODE : 5F  
DANGER LABEL TANKS : -  
DANGER LABEL PACKAGES : 2.1  
PROPER SHIPPING NAME :  
aerosols

### 14.4 ADNR (transport by inland waterways)

CLASS : 2  
PACKING GROUP :  
CLASSIFICATION CODE : 5F  
DANGER LABEL TANKS : -  
DANGER LABEL PACKAGES : 2.1

### 14.5 IMDG (maritime transport)

CLASS : 2.1  
SUB RISKS : -  
PACKING GROUP : -  
MFAG : -  
EMS : F-D, S-U  
MARINE POLLUTANT : P

### 14.6 ICAO (air freight)

CLASS : 2.1  
SUB RISKS : -  
PACKING GROUP : -  
PACKING INSTRUCTIONS PASSENGER AIRCRAFT : 203/Y203  
PACKING INSTRUCTIONS CARGO AIRCRAFT : 203

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14.7 Special precautions : None

14.8 Limited quantities (LQ) :

When substances and their packaging meet the conditions established by ADR/RID/ADNR in chapter 3.4, only the following prescriptions shall be complied with:

each package shall display a diamond-shaped figure with the following inscription:

- 'UN 1950'

or, in the case of different goods with different identification numbers within a single package:

- the letters 'LQ'

## 15. Regulatory information

### 15.1 EU Legislation:

Labelling in accordance with EC directives 67/548/EEC, 1999/45/EC and 2006/8/EC



Extremely flammable



Irritant



Dangerous for the environment

R38 : Irritating to skin  
R51/53 : Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment  
R67 : Vapours may cause drowsiness and dizziness

S23 : Do not breathe spray  
S(46) : (If swallowed, seek medical advice immediately and show this container or label)  
S51 : Use only in well-ventilated areas  
S61 : Avoid release to the environment. Refer to special instructions/safety data sheets

Keep away from sources of ignition - No smoking.  
Keep out of the reach of children.  
Pressurized container. Protect from sunlight and do not expose to temperatures exceeding 50°C.  
Do not pierce or burn after use.  
Do not spray on a naked flame or any incandescent material.

### 15.2 National provisions:

**the Netherlands:**  
Waterbezwaarlijkheid: 6

**Germany:**  
WGK : 2 (Classification based on the components in compliance with Verwaltungsvorschrift wassergefährdender Stoffe (VwVwS) of 17 May 1999)

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## 16. Other information

The information provided on this SDS 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 as 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 material or in any process, unless specified in the text.

**N.A.** = NOT APPLICABLE  
**N.D.** = NOT DETERMINED  
**(\*)** = INTERNAL CLASSIFICATION (NFPA)

**PBT-substances** = persistent, bioaccumulative and toxic substances

### Exposure limits:

**TLV** : Threshold Limit Value - ACGIH US  
**WEL** : Workplace Exposure Limits - United Kingdom  
**TRGS 900** : Technische Regel für Gefahrstoffe 900 (Arbeitsplatzgrenzwerte) - Germany  
**MAK** : Maximale Arbeitsplatzkonzentrationen - Germany  
**GWBNL** : Grenswaarde voor blootstelling - the Netherlands  
**GWKNL** : Grenswaarde korte duur - the Netherlands  
**VME** : Valeurs limites de Moyenne d'Exposition - France  
**VLE** : Valeurs limites d'Exposition à court terme - France  
**GWBB** : Grenswaarde beroepsmatige blootstelling - Belgium  
**GWK** : Grenswaarde kortstondige blootstelling - Belgium  
**EC** : Indicative occupational exposure limit values

**I** : Inhalable fraction = **T** : Total dust = **E** : Einatembare Aerosolanteil  
**R** : Respirable fraction = **A** : Alveolengängiger Aerosolanteil/Alveolar dust  
**C** : Ceiling limit

<b>a:</b>	aerosol	<b>r:</b>	rook/Rauch	(fume)
<b>d:</b>	damp (vapour)	<b>st:</b>	stof/Staub	(dust)
<b>du:</b>	dust	<b>ve:</b>	vezel	(fibre)
<b>fa:</b>	Faser (fibre)	<b>va:</b>	vapour	
<b>fi:</b>	fibre	<b>om:</b>	oil mist	
<b>fu:</b>	fume	<b>on:</b>	olienevel/Ölnebel	(oil mist)
<b>p:</b>	poussière (dust)	<b>part:</b>	particles	

### Chronic toxicity:

**K** : List of the carcinogenic substances and processes - The Netherlands

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

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