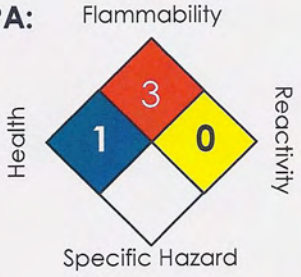
Material Safety Data Sheet

# Brake Cleaner 4L

Version 1.0 Revision Date 12/30/2009 Print Date 02/01/2010

**NFPA:**




**HMIS III:**

| | |
|---|---|
| HEALTH | 2 |
| FLAMMABILITY | 3 |
| PHYSICAL | 0 |

0 = Insignificant, 1 =Slight,
2 =Moderate, 3 =High, 4 = Extreme

## SECTION 1. PRODUCT AND COMPANY IDENTIFICATION

| | | |
|---|---|---|
| Commercial Product Name | : | Brake Cleaner 4L |
| Product code | : | 890,108714 |
| MSDS-Identcode | : | 10004011 |
| Product Use Description | : | Cleaning agent |
| Company | : | Würth Canada Limited<br>6330 Tomken Road Mississauga<br>Ontario L5T 1N2<br>Canada |
| Telephone | : | +1 (905) 564 6225 |
| Telefax | : | +1 (905) 564 3671 |
| Responsible/issuing person | : | prodsafe.wurth@technidata.com |
| Emergency telephone | : | CANUTEC<br>+1 (613) 996 6666<br>Telephone number of the company in case of emergencies (7.00am – 7.00pm):<br>+1 (905) 564 6225 |

## SECTION 2. HAZARDS IDENTIFICATION

**Emergency Overview**

| | | |
|---|---|---|
| **Regulatory status** | : | This product, material or substance is a WHMIS controlled product per Sections 33 - 66, Part IV of the CPR. |
| **Signal Word** | : | WARNING |
| Form | : | liquid |
| Colour | : | colourless |
| Odour | : | hydrocarbon-like |

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| Odour - Control parameters | : no data available |
| Hazard Summary | : Irritant<br>Extremely flammable.<br><br>May cause fire. |

**Potential Health Effects**

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| Eyes | : May cause eye irritation. |
| Skin | : May cause skin irritation. |
| Target Organs | : Eyes<br>Skin<br>Central nervous system |

Carcinogenicity:

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| ACGIH | : No component of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by ACGIH. |
| NTP | : No component of this product present at levels greater than or equal to 0.1% is identified as a known or anticipated carcinogen by NTP. |
| IARC | : No component of this product present at levels greater than or equal to 0.1% is identified as probable, possible or confirmed human carcinogen by IARC. |
| OSHA | : No component of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by OSHA. |
| CA Prop 65 | : This product does not contain any chemicals known to State of California to cause cancer, birth defects, or any other reproductive harm. |

## SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS

| Component | CAS-No. | Weight percent-Weight percent |
|---|---|---|
| heptane [and isomers] | 142-82-5 | >= 95 - <= 100 |
| propan-2-ol; isopropyl alcohol; isopropanol | 67-63-0 | >= 3 - < 5 |

## SECTION 4. FIRST AID MEASURES

General advice : If you feel unwell, seek medical advice (show the label where possible). First aider needs to protect himself. Move out of dangerous area. Never give anything by mouth to an unconscious person. Take off contaminated clothing and shoes immediately.

Inhalation : If breathed in, move person into fresh air. If symptoms persist, call a physician. Keep patient warm and at rest. If not breathing, give artificial respiration. If breathing is difficult, give oxygen.

Skin contact : In case of contact, immediately flush skin with soap and plenty of water. Do NOT use solvents or thinners. If skin irritation persists, call a physician. Wash off with polyethylene glycol and afterwards with plenty of water.

Eye contact : Protect unharmed eye. If easy to do, remove contact lens, if worn. In the case of contact with eyes, rinse immediately with plenty of water and seek medical advice.

Ingestion : If swallowed, seek medical advice immediately and show this container or label. If swallowed, DO NOT induce vomiting. If a person vomits when lying on his back, place him in the recovery position.

## SECTION 5. FIRE-FIGHTING MEASURES

Form : liquid

Flash point : -8 °C (18 °F)

Lower explosion limit : 2.0 %(V)

Upper explosion limit : 12.7 %(V)

Suitable extinguishing media : Alcohol-resistant foam
Water mist

Carbon dioxide (CO2)
Dry chemical

| | | |
|---|---|---|
| Unsuitable extinguishing media | : | High volume water jet |
| Specific hazards during fire fighting | : | Do not use a solid water stream as it may scatter and spread fire.<br>Hazardous decomposition products formed under fire conditions (see chapter 10).<br>Exposure to decomposition products may be a hazard to health. |
| Special protective equipment for fire-fighters | : | In the event of fire, wear self-contained breathing apparatus.<br>Use personal protective equipment. |
| Further information | : | Standard procedure for chemical fires.<br>Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.<br>In the event of fire and/or explosion do not breathe fumes.<br>Use water spray to cool unopened containers.<br>Collect contaminated fire extinguishing water separately. This must not be discharged into drains.<br>Fire residues and contaminated fire extinguishing water must be disposed of in accordance with local regulations.<br>Pay attention to flashback. |

## SECTION 6. ACCIDENTAL RELEASE MEASURES

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| Personal precautions | : | Refer to protective measures listed in sections 7 and 8.<br>Use personal protective equipment.<br>Remove all sources of ignition.<br>Avoid contact with skin and eyes.<br>Ensure adequate ventilation, especially in confined areas.<br>Immediately evacuate personnel to safe areas.<br>Avoid inhalation of vapour or mist.<br>Beware of vapours accumulating to form explosive concentrations. Vapours can accumulate in low areas. |

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| Environmental precautions | : | Do not flush into surface water or sanitary sewer system.<br>Prevent further leakage or spillage if safe to do so.<br>If the product contaminates rivers and lakes or drains inform respective authorities.<br>Avoid release to the environment. Refer to special instructions/ Safety data sheets. |
| Methods for cleaning up | : | Contain and collect spillage with non-combustible absorbent material, (e.g. sand, earth, diatomaceous earth, vermiculite) and place in container for disposal according to local / national regulations.<br>Clean contaminated surface thoroughly. |

## SECTION 7. HANDLING AND STORAGE

### Handling

| | | |
|---|---|---|
| Handling | : | For personal protection see section 8.<br>Do not breathe vapours or spray mist.<br>Avoid contact with skin and eyes.<br>Prevent the creation of flammable or explosive concentrations of vapour in air and avoid vapour concentration higher than the occupational exposure limits.<br>Take precautionary measures against static discharges.<br>Use appropriate container to avoid environmental contamination. |
| Advice on protection against fire and explosion | : | Normal measures for preventive fire protection.<br>Vapours are heavier than air and may spread along floors.<br>Vapours may form explosive mixtures with air.<br>Keep away from heat and sources of ignition.<br>Do not smoke.<br>No sparking tools should be used.<br>Electrical equipment should be protected to the appropriate standard. |
| Dust explosion class | : | not applicable |

### Storage

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| Requirements for storage | : | Store in original container. |

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| areas and containers | | Keep containers tightly closed in a dry, cool and well-ventilated place.<br>Keep away from heat.<br>Keep away from direct sunlight. |
| Advice on common storage | : | Incompatible with oxidizing agents.<br>Incompatible with acids. |
| Advice on common storage | : | Keep away from food, drink and animal feedingstuffs.<br>Do not store together with oxidizing and self-igniting products. |
| Other data | : | No decomposition if stored and applied as directed. |

## SECTION 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

### Exposure Guidelines

| Components | CAS-No. | List | Type: | Value | Update |
|---|---|---|---|---|---|
| heptane [and isomers] | 142-82-5 | CA BC OEL | TWA | 400 ppm | 2006-11-29 |
| | | CA BC OEL | STEL | 500 ppm | 2006-11-29 |
| | | CA ON OEL | TWAEV | 400 ppm 1,635 mg/m3 | 2005-12-17 |
| | | CA ON OEL | STEV | 500 ppm 2,045 mg/m3 | 2005-12-17 |
| | | CA QC OEL | TWAEV | 400 ppm 1,640 mg/m3 | 2006-12-29 |
| | | CA QC OEL | STEV | 500 ppm 2,050 mg/m3 | 2006-12-29 |
| propan-2-ol; isopropyl alcohol; isopropanol | 67-63-0 | CA AB OEL | STEL | 500 ppm 1,230 mg/m3 | 2004-04-30 |
| | | CA AB OEL | TWA | 400 ppm 983 mg/m3 | 2004-04-30 |
| | | CA AB OEL | STEL | 400 ppm 984 mg/m3 | 2009-04-30 |
| | | CA AB OEL | TWA | 200 ppm 492 mg/m3 | 2009-04-30 |
| | | CA BC OEL | TWA | 200 ppm | 2006-11-29 |
| | | CA BC OEL | STEL | 400 ppm | 2006-11-29 |
| | | CA ON OEL | TWAEV | 200 ppm | 2005-12-17 |
| | | CA ON OEL | STEV | 400 ppm | 2005-12-17 |
| | | CA QC OEL | TWAEV | 400 ppm 983 mg/m3 | 2006-12-29 |
| | | CA QC OEL | STEV | 500 ppm 1,230 mg/m3 | 2006-12-29 |

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

| | | |
|---|---|---|
| Eye protection | : | Tightly fitting safety goggles |
| Hand protection<br>Glove material | : | Nitrile rubber<br><br>Choose gloves to protect hands against chemicals depending on the concentration and quantity of the hazardous substance and specific to place of work.<br>For special applications, we recommend clarifying the resistance to chemicals of the aforementioned protective gloves with the glove manufacturer. |
| Skin and body protection | : | Flame retardant antistatic protective clothing<br>Choose body protection according to the amount and concentration of the dangerous substance at the work place. |
| Respiratory protection | : | When workers are facing concentrations above the exposure limit they must use appropriate certified respirators. |
| Hygiene measures | : | Handle in accordance with good industrial hygiene and safety practice.<br>General industrial hygiene practice.<br>Avoid breathing vapors, mist or gas.<br>Avoid contact with skin, eyes and clothing.<br>When using do not eat, drink or smoke.<br>Wash hands before breaks and at the end of workday.<br>Follow the skin protection plan.<br>Wash contaminated clothing before re-use. |

## SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

| | | |
|---|---|---|
| Form | : | liquid |
| Colour | : | colourless |
| Odour | : | hydrocarbon-like |
| Flash point | : | -8 °C (18 °F) |
| Lower explosion limit | : | 2.0 %(V) |
| Upper explosion limit | : | 12.7 %(V) |
| pH | : | not applicable |

| | | |
|---|---|---|
| Boiling point/boiling range | : | 83 °C(181 °F) |
| Vapour pressure | : | no data available |
| Relative vapour density | : | >1<br>(Air = 1.0) |
| Density | : | 0.70 g/cm3 |
| Water solubility | : | insoluble |
| Viscosity, kinematic | : | < 14 mm2/s<br>at 40 °C (104 °F) |

## SECTION 10. STABILITY AND REACTIVITY

| | | |
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| Conditions to avoid | : | Heat, flames and sparks. |
| Materials to avoid | : | Oxidizing agents<br>Peroxides<br>Nitric acid |
| Hazardous decomposition products | : | Carbon monoxide<br>Carbon dioxide (CO2)<br>Organic Substances |
| Hazardous decomposition products | : | Build-up of dangerous/toxic fumes possible in cases of fire/high temperature |
| Hazardous reactions | : | Note: No decomposition if stored and applied as directed. |
| Hazardous reactions | : | Vapours may form explosive mixtures with air. |

## SECTION 11. TOXICOLOGICAL INFORMATION

| | | |
|---|---|---|
| Carcinogenicity | : | No data is available on the product itself. |
| Reproductive toxicity | : | No data is available on the product itself. |
| Teratogenicity | : | No data is available on the product itself. |
| Further information | : | Vapours may cause drowsiness and dizziness.<br>Symptoms of overexposure may be headache, dizziness, tiredness, nausea and vomiting. |

Aspiration hazard if swallowed - can enter lungs and cause damage.
May cause irritation of respiratory tract.

| **Component:** | | |
|---|---|---|
| heptane [and isomers] | 142-82-5 | Acute oral toxicity: LD50 rat<br>Dose: > 15,000 mg/kg<br><br>Acute inhalation toxicity: LC50 rat<br>Dose: 103 g/m3Exposure time: 4 h<br><br>Skin irritation: Classification: Irritating to skin.<br>Result: Skin irritation<br>Repeated or prolonged exposure may cause skin irritation and dermatitis, due to degreasing properties of the product.<br>Eye irritation: Classification: Irritating to eyes.<br>Result: Mild eye irritation |
| propan-2-ol; isopropyl alcohol; isopropanol | 67-63-0 | Acute oral toxicity: LD50 rat<br>Dose: 5,045 mg/kg<br><br>Acute dermal toxicity: LD50 rabbit<br>Dose: 12,800 mg/kg<br><br>Acute inhalation toxicity: LC50 rat<br>Dose: 46.5 mg/lExposure time: 4 h<br><br>Skin irritation: Classification: Irritating to skin.<br>Result: Mild skin irritation<br><br>Eye irritation: Classification: Irritating to eyes.<br>Result: Moderate eye irritation |

## SECTION 12. ECOLOGICAL INFORMATION

Adsorbed organic bound halogens (AOX) : not included

Additional ecological information : The product should not be allowed to enter drains, water courses or the soil.

| **Component:** | | |
|---|---|---|
| heptane [and isomers] | 142-82-5 | Toxicity to fish:<br>LC50<br>Species: Carassius auratus (goldfish)<br>Dose: 4 mg/l<br>Exposure time: 24 h |

| | | |
|---|---|---|
| | | Acute and prolonged toxicity for aquatic invertebrates:<br>EC50<br>Species: Daphnia magna (Water flea)<br>Dose: 1.5 mg/l<br>Exposure time: 48 h |
| propan-2-ol; isopropyl alcohol; isopropanol | 67-63-0 | Toxicity to fish:<br>LC50<br>Species: Pimephales promelas (fathead minnow)<br>Dose: 9,640 mg/l<br>Exposure time: 96 h<br><br>Acute and prolonged toxicity for aquatic invertebrates:<br>EC50<br>Species: Daphnia magna (Water flea)<br>Dose: 13,299 mg/l<br>Exposure time: 48 h |

## SECTION 13. DISPOSAL CONSIDERATIONS

Adequate disposal : In accordance with local and national regulations.
Do not dispose of waste into sewer.
This material and its container must be disposed of as hazardous waste.
Do not dispose of together with household waste.

## SECTION 14. TRANSPORT INFORMATION

**DOT 49 CFR**

Proper shipping name : Flammable liquids, n.o.s.
ID No : UN 1993
Class : 3
Packing group : II
Labels : 3
Emergency Response Guidebook Number : 128
Hazard inducer : (heptane [and isomers], propan-2-ol; isopropyl alcohol; isopropanol)

**TDGR**

Proper shipping name : FLAMMABLE LIQUID, N.O.S.
ID No : UN 1993

| | | |
|---|---|---|
| Class | : | 3 |
| Packing group | : | II |
| Labels | : | 3 |
| Emergency Response Guidebook Number | : | 128 |
| Hazard inducer | : | (heptane [and isomers], propan-2-ol; isopropyl alcohol; isopropanol) |

**ICAO / IATA-DGR**

| | | |
|---|---|---|
| ID No | : | UN 1993 |
| Description of the goods | : | Flammable liquid, n.o.s. (heptane [and isomers], propan-2-ol; isopropyl alcohol; isopropanol) |
| Class | : | 3 |
| Packaging group | : | II |
| ICAO-Labels | : | 3 |
| Packing instruction (cargo aircraft) | : | 307 |
| Packing instruction (passenger aircraft) | : | 305 |
| Packing instruction (passenger aircraft) | : | Y305 |

**IMDG-Code**

| | | |
|---|---|---|
| ID No | : | UN 1993 |
| Description of the goods | : | FLAMMABLE LIQUID, N.O.S. (heptane [and isomers], propan-2-ol; isopropyl alcohol; isopropanol) |
| Class | : | 3 |
| Packaging group | : | II |
| IMDG-Labels | : | 3 |
| EmS Number 1 | : | F-E |
| EmS Number 2 | : | S-E |
| Marine pollutant | : | no |

## SECTION 15. REGULATORY INFORMATION

**WHMIS Classification** : B2 Flammable liquid
D2B Toxic Material Causing Other Toxic Effects
Flammable liquid
Moderate skin irritant
Moderate eye irritant

This product has been classified according to the hazard criteria of the CPR and the MSDS contains all of the information required by the CPR.

## SECTION 16. OTHER INFORMATION

### Further information

The information provided in this Safety Data Sheet 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 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 materials or in any process, unless specified in the text.

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