

**Product Name** *Brake Clean*

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**1. PRODUCT AND COMPANY IDENTIFICATION**

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**Product Name:** *Brake Clean*  
**Recommended use:** **Brake Parts Cleaner**  
**Company Details:** **Envirochem International (NZ) Ltd**  
**Address:** 41 Angle Street, Onehunga  
Auckland. New Zealand  
**Telephone Number:** +64 9 262 0800  
**Emergency Telephone Number:** National Poison Information Centre 0800 764 766  
**Date of Preparation:** 01/06/2017

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**2. HAZARD IDENTIFICATION**

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**HSNO Hazard Classification:** 3.1B, 6.3A, 6.4A, 6.1E (aspiration), 6.8B, 6.9A,9.1B

**Hazard Statement:**

Highly flammable liquid and vapour

May be fatal if swallowed and enters airways

Causes skin irritation

Causes serious eye irritation

Suspected of damaging fertility or the unborn child

Causes damage to organs by inhalation through prolonged or repeated exposure central nervous system, peripheral nervous system

Toxic to aquatic life with long lasting effects

**Prevention Statements:**

- Keep out of reach of children.
- Read label before use.
- Obtain special instructions before use.
- Do not handle until all safety precautions have been read and understood.
- Keep away from heat/sparks/open flames/hot surfaces. -No smoking.
- Keep container tightly closed.
- Ground/bond container and receiving equipment.
- Use explosion-proof electrical/ventilating/lighting/equipment.
- Use only non-sparking tools.
- Take precautionary measures against static discharge.
- Do not breathe dust/fume/gas/mist/vapours/spray.
- Wash contaminated skin thoroughly after handling.
- Do not eat, drink or smoke when using this product.
- Use personal protective equipment as required
- Avoid release into environment

**Response Statement:**

- If medical advice is needed, have product container or label at hand.
- If exposed or concerned: Get medical advice/attention.
- Get medical advice/attention if you feel unwell.
- In case of fire: Use foam or water mist (Small fires: carbon dioxide, dry chemical, sand) for extinction
- Collect spillage
- If swallowed rinse out mouth and do not induce vomiting. Call POISON CENTER or doctor physician if you feel unwell.
- If exposed: Call a POISON CENTRE or doctor physician
- Absorb spillage to prevent material damage
- If swallowed: Rinse mouth DO NOT induce vomiting
- If on skin (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower
- Wash contaminated clothing before use
- If inhaled: remove to fresh air and keep at rest in a position comfortable for breathing
- Immediately call a POISON CENTRE or doctor/physician
- If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do, continue rinsing

**Storage Statement:**

- Store in a well-ventilated place. Keep cool
- Store locked up

**Disposal**

- Disposal should be through qualified contractor.

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**3. COMPOSITION/INFORMATION ON INGREDIENTS**

Ingredient	CAS #	Concentration %
Solvent naphtha (petroleum), light aliphatic	64742-89-8	>75

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**4. FIRST AID MEASURES**

**Ingestion:**

Immediately rinse mouth with water. If swallowed do not induce vomiting. Give water to drink. Never give anything by mouth to an unconscious person. Seek immediate medical aid immediately.

**Eye Contact:**

Immediately flush eyes with large amounts of water for at least 15 minutes while holding eyelids open. Transport to the nearest medical facility for additional treatment. Do not rub eyes or keep eyes closed

**Skin Contact:**

Remove contaminated clothing. Flush exposed area with water and follow by washing with soap if available.

**Inhalation:**

Remove the effected person out to a ventilated area. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Seek medical attention.

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**5. FIRE FIGHTING MEASURE**

**Extinguishing Media:**

Use dry chemical powder, foam, polymer foam, and water spray or fog type extinguishers. Water may be ineffective on fire. However, water spray may be used to extinguish fires and to absorb heat. Keep containers cool and protect exposed material. If a leak or spill has not ignited, water spray may be used to flush spills away from exposures.

**Unsuitable Extinguishing Media**

Do not use a water jet

**Hazards from combustion products:**

Under fire conditions this product may emit toxic and/or irritating fumes, smoke and gases including carbon monoxide, carbon dioxide and oxides of nitrogen.

**Specific Hazards Arising from The Chemical**

Highly flammable liquid and vapour. Vapour/air mixtures may ignite explosively. Flashback along the vapour trail may occur. Runoff to sewer may create fire or explosion hazard.

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**Decomposition Temperature**

Not Available

**Precautions in Connection with Fire**

Fire fighters should wear full protective clothing and self-contained breathing apparatus (SCBA) operated in positive pressure mode. In case of fire the product may be violently or explosively reactive. Use water spray to disperse vapours. This product should be prevented from entering drains and watercourses.

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**6. ACCIDENTAL RELEASE MEASURES**

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**Emergency Precautions:**

Personnel involved in the clean up should wear full protective clothing. Extinguish or remove all sources of ignition. Evacuate all unnecessary personnel. Increase ventilation. Avoid walking through spilled product as it may be slippery. Stop leak if safe to do so. Do not let product reach drain or waterways; advise the Environmental Protection Authority or your local Waste Management. Use clean, non-sparking tools and equipment.

**Methods and Materials for Containment and Clean Up:**

Soak up spilled product using inert absorbent, non-combustible material such as sand or soil. Avoid using sawdust or cellulose. When saturated, collect material into suitable, labelled, dry, sealable containers and hold for safe disposal. Use clean non-sparking tools to collect the material and place in labelled containers. Once pick-up is complete, flush spill site with plenty of water to eliminate any residue. Hold contaminated water for treatment/disposal.

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**7. HANDLING AND STORAGE**

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**Precautions for Safe Handling:**

Wear appropriate personal protective equipment and clothing to prevent exposure. Handle and use the material in a well-ventilated area, away from sparks, flames and other ignition sources. Have emergency equipment (for fires, spills, leaks, etc.) readily available. Work from suitable, labelled, fire resistant containers. Open containers carefully as they may be under pressure. Keep containers tightly closed. Flameproof equipment is necessary in areas where the product is being used. Take precautionary measure against static discharges. Earth or bon all equipment. Do not empty into drains. Ensure a high level of personal hygiene is maintained when using this product, that is, always wash hands before eating, drinking, smoking or using toilet facilities. Avoid exposure. Do not handle until safety precautions have been read and understood. It is recommended that pregnant or breastfeeding women should not handle this product unless adequate exposure protection can be assured at all times. Female personnel planning pregnancy should be made aware of the potential risks.

**Conditions for safe storage, including any incompatibilities:**

Store in a cool, dry, well-ventilated area away from sources of ignition, Oxidising agents, strong acids, foodstuffs and clothing. Keep containers closed when not in use, securely sealed and protected against physical damage. Inspect regularly for deficiencies such as damage or leaks. Have appropriate fire extinguishers available in and near the storage area. Take precautions against static electricity charges. Use proper grounding procedures. Ensure that storage conditions comply with applicable local and national regulations.

For information on the design of the storeroom, reference should be made to Australian Standard AS1940 – The storage and handling of flammable and combustible liquids. References should also be made to all applicable local and national regulations.

**Recommended Materials**

For containers, or container lining use mild steel, stainless steel. For container paints, use epoxy paint, zinc silicate paint.

**Unsuitable Materials**

Natural rubber, nitrile rubber, butyl rubber

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**8. EXPOSURE CONTROLS / PERSONAL PROTECTION**

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**Exposure Standards:**

The Occupational Safety and Health Service, NZ Department of Labour have set no Tolerable Exposure Limit

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(TEL) Workplace Exposure Standards (WES) for this substance.

**Biological Limit Values:**

Name: n-hexane [110-54-3]  
Determinant: 2,5-Hexanedion without hydrolysis in urine  
BEI®: 0.5 mg/l  
Specimen: Urine  
Sampling time: end of shift at end of work week.

Source: American Conference of Industrial Hygienists (ACGIH)

**Other Exposure Information**

n-hexane [110-54-3]  
TWA: 20ppm, 72mg/m<sup>3</sup>  
TWA (Time Weighted Average): The average airborne concentration of a particular substance when calculated over normal eight-hour day, for five-day week.

Source: Occupational Safety and Health Service (OSH) of New Zealand Department of Labour

**Engineering Controls:**

The use of local exhaust ventilation (Flame Proof) is recommended to control process emissions near the source. Laboratory samples should be handled in a fume hood. Provide mechanical ventilation of confined spaces. Use explosion proof ventilation equipment

**PERSONAL PROTECTIVE EQUIPMENT:**

**Respiratory Protection:**

Where concentration in air may exceed the limits described in the National Exposure Standards, it is recommended to use a half face filter mask to protect from overexposure by inhalation. A type “A” filter material is considered suitable for this product.

**Eye Protection:**

Always use safety glasses or a face shield when handling this product.

**Skin/Body Protection:**

Always wear long sleeves and long trousers or coveralls, enclosed footwear or safety boots and chemical resistant gloves when manufacturing this product.

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**9. PHYSICAL AND CHEMICAL PROPERTIES**

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<b>Appearance:</b>	Colorless
<b>Physical State:</b>	Liquid
<b>Odour:</b>	Paraffinic Sweet
<b>Decomposition temperature</b>	Not Available
<b>Melting Point:</b>	-50 deg (Typical)
<b>pH:</b>	Not Applicable
<b>Solubility:</b>	Negligible
<b>Solubility in Organic Solvents:</b>	Miscible with hydrocarbon solvents
<b>Vapour Density:</b>	3.1
<b>Boiling point:</b>	67-95 deg (typical)
<b>Ignition Point:</b>	350 deg (ASTM E-659)
<b>Flash Point:</b>	<-20 deg (typical) (Abel Closed Cup)
<b>Vapour pressure:</b>	15kPa (20 deg (typical)
<b>Evaporation Rate:</b>	Not Available
<b>Partition Coefficient: n-Octanol/water</b>	Lop Pow: 3.4-5.2
<b>Density:</b>	695 kg/m <sup>3</sup> (15 deg, ASTM D4053) (typical)
<b>Flammable Limits – Lower</b>	1.0% v/v
<b>Flammable Limits – Upper</b>	7.50% v/v

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<b>Molecular Weight</b>	90 g/mol
<b>Dynamic Viscosity</b>	Not Available

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## **10. STABILITY AND REACTIVITY**

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### **Chemical Stability:**

Stable under normal condition of storage and handling

### **Conditions to avoid:**

Avoid heat, open flame and other sources of ignition.

### **Incompatible Materials:**

Incompatible with strong Oxidising agents

### **Hazardous decomposition:**

Thermal decomposition may result in the release of toxic and/or irritating fumes including: organic compounds, carbon dioxide and carbon monoxide.

### **Hazardous reactions:**

Reacts with incompatible materials.

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## **11. TOXICOLOGICAL INFORMATION**

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No adverse health effects expected if the product is handled in accordance with the safety data sheet.

Symptoms or effects that may arise if the product is mishandled and the overexposure occurs are:

### **Acute Effects**

#### **Ingestion:**

Small amounts of liquid aspirated into lungs during ingestion, or from vomiting. Ingestion of large amounts of this product will result in headaches, nausea, dizziness and tracheal burning.

#### **Eye Contact:**

Causes serious eye irritation. On eye contact this product will cause tearing, stinging, blurred vision and redness.

#### **Skin Contact:**

This product is irritating to skin. Skin contact will cause redness, itching and swelling. Repeated exposure may cause skin dryness and cracking and may lead to dermatitis

#### **Inhalation:**

Irritating to respiratory tract. Exposure to high concentrations over an extended period of time may result in muscle weakness, tingling in hands and feet, blurred vision, headaches, nausea, loss of appetite, hallucinations and possible loss of consciousness.

#### **Reproductive Toxicity**

Suspected of damaging fertility or the unborn child. Classified as a suspected human reproductive or developmental toxicant.

n-hexane causes fetotoxicity in animals at doses which are maternally toxic.

Affects reproductive system in animals at doses which produce other toxic effects.

#### **STOT-repeated exposure**

Causes damage to organs by inhalation through prolonged or repeated exposure central nervous system, peripheral nervous system.

#### **Other Information**

Central nervous system: repeated exposure affects the nervous system. Causes kidney effects in male rats which are not considered relevant to humans.

Exposure to very high concentrations of similar materials has been associated with irregular heart rhythms and cardiac arrest.

N hexane causes peripheral neuropathy which can be potentiated by ketones.

#### **Toxicological information**

Actual oral toxicity LD50 (rat): >5000mg/kg

Acute dermal toxicity LD50 (rat): >5000mg/kg

Information given is based on product, and/or similar products, and/or components.

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## 12. ECOLOGICAL INFORMATION

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### Ecotoxicity

Toxic to aquatic life with long lasting effects. Available toxicity data is given below. The data are derived from the evaluations or test results achieved with similar products (conclusion by analogy).

### Persistence/ degradability:

Inherently biodegradable. Oxidises rapidly by photo-chemical reactions in air.

### Mobility:

Floats on water. Absorbs to soil and is not mobile

### Bio accumulative Potential:

Expected to be bio accumulative

### Other Adverse Effects

In view from the high rate of loss from solution, the product is unlikely to pose a significant hazard to aquatic life.

### Environmental Protection

Do not discharge this material into waterways, drains and sewers.

### Acute Toxicity – Fish

Expected to be harmful. LL/EL/IL50: >10-<=100mg/l

### Acute Toxicity – Daphnia

Expected to be harmful. LL/EL/IL50: >1-<=10mg/l

### Acute Toxicity – Algae

Expected to be harmful. LL/EL/IL50: >1-<=10mg/l

### Acute Toxicity – Other Organisms

Microorganisms

Expected to be toxic. LL/EL/IL50: >1-<=10mg/l

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## 13. DISPOSAL CONSIDERATIONS

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### Disposal Methods:

Dispose of waste according to applicable local and national regulations. Labels should not be removed from containers until they have been cleaned. Advise flammable nature.

Empty packaging should be taken for recycling, recovery or disposal through a suitably qualified or licensed contractor. Care should be taken to ensure compliance with national and local authorities. Packaging may still contain fumes and vapours that are flammable and harmful.

### Special precautions for landfill or incineration:

This product is not suitable for disposal by either landfill or via municipal sewers, drain, natural streams or rivers. This product is ash less and can be burned directly in appropriate equipment.

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## 14. TRANSPORT INFORMATION

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### Road and Rail Transport:

Classified as Dangerous Goods by the criteria of New Zealand Dangerous Goods Code for transport by road and rail

### Marine Transport:

Classified as Dangerous Goods by the criteria of international Maritime Dangerous Goods Code for transport by sea.

### Air Transport:

Classified as Dangerous Goods by the criteria of international Air Association Dangerous Goods Regulations for transport by air



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<b>Shipping Name:</b>	Flammable Liquid N.O.S
<b>Hazard Class:</b>	3
<b>UN Number:</b>	UN 1993
<b>Packing Group:</b>	II
<b>Hazchem Code:</b>	3YE

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#### **15. REGULATORY INFORMATION**

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<b>HSNO Approval No:</b>	HSR002650
<b>Group Standard:</b>	Solvents (flammable) Group Standard 2006
<b>HSNO Classification:</b>	3.1B, 6.3A, 6.4A, 6.1E (aspiration), 6.8B, 6.9A,9.1B

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#### **16. OTHER INFORMATION**

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<b>New Zealand National Poison Information Centre:</b>	0800 764 766
<b>New Zealand Emergency Services:</b>	111
<b>Envirochem International (NZ) Ltd :</b>	+64 9 262 0800

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