## 1. PRODUCT AND COMPANY IDENTIFICATION

<table>
<thead>
<tr>
<th>Product Name:</th>
<th>Brake Clean</th>
</tr>
</thead>
<tbody>
<tr>
<td>Use:</td>
<td>Industrial Chemical, Industrial Solvent; Cleaning and Degreasing</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Company</th>
<th>Hydraulink Fluid Connectors Ltd</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>21 O'Rorke Road Penrose, Auckland 1061 Tel: 09 525 2626</td>
</tr>
</tbody>
</table>

| Emergency Contact Numbers: | NATIONAL POISON CENTRE: 0800 764 766 POLICE/FIRE/AMBULANCE: 111 |

## 2. HAZARDOUS IDENTIFICATIONS

**EPA New Zealand Approval Code:** HSR002650  
**Hazard Classifications:** 3.1B, 6.1E, 6.3A, 6.9, 9.1B  
Refer to www.epa.govt.nz for Controls for this substance

**Signal word:** DANGER

### Hazard Statements

H225 Highly flammable liquid and vapour.  
H304 May be fatal if swallowed and enters airways.  
H315 Causes skin irritation.  
H336 May cause dizziness and drowsiness.  
H411 Toxic to aquatic life with long-lasting effects.

### Prevention Statements

- P201 Keep away from heat/sparks/flame. No smoking.  
- P233 Keep container tightly closed.  
- P240 Ground/bond container and receiving equipment.  
- P241 Use explosion-proof equipment.  
- P242 Use only non-sparking tools.  
- P243 Take precautionary measures against static discharge.  
- P261 Avoid breathing vapours.  
- P264 Wash hands thoroughly after handling.  
- P271 Use only outdoors or in well-ventilated area.  
- P273 Avoid release to environment.  
- P280 Wear protective gloves.

### Response Statements

- P101 If medical advice is needed, have product container or label at hand.  
- P301 + P310 IF SWALLOWED: Immediately call a POISON CENTRE or doctor.  
- P331 Do NOT induce vomiting.  
- P302 + P352 IF ON SKIN: Wash with plenty of soap and water.  
- P332 + P313 If skin irritation occurs: Get medical advice.  
- P362 Take off contaminated clothing and wash before reuse.  
- P304 + P340 IF INHALED: Remove to fresh air and keep at rest in a position comfortable for breathing.  
- P312 Call a POISON CENTRE or doctor if you feel unwell.  
- P370 + P378 IN CASE OF FIRE: Use foam or CO2 for extinction.  
- H391 Collect spillage.
3. COMPOSITION/INFORMATION ON INGREDIENTS

<table>
<thead>
<tr>
<th>Chemical Ingredient</th>
<th>CAS. No.</th>
<th>%w/w</th>
</tr>
</thead>
<tbody>
<tr>
<td>Naphtha (Petroleum), hydrotreated light ;</td>
<td>64742-49-0</td>
<td>90-100</td>
</tr>
<tr>
<td>Product is a complex mixture and may contain:</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Cyclohexane, 20 – &lt;30%</td>
<td>110-82-7</td>
<td></td>
</tr>
<tr>
<td>Heptane, 60 - &lt;70%</td>
<td>142-82-5</td>
<td></td>
</tr>
<tr>
<td>Methylcyclohexane, 10-&lt;20%</td>
<td>108-87-2</td>
<td></td>
</tr>
<tr>
<td>n-Hexane, 1-&lt;5%</td>
<td>110-54-3</td>
<td></td>
</tr>
<tr>
<td>Octane, 1-&lt;5%</td>
<td>111-65-9</td>
<td></td>
</tr>
<tr>
<td>2-Propanol</td>
<td>67-63-0</td>
<td>1-10</td>
</tr>
</tbody>
</table>

4. FIRST AID MEASURES

If medical advice is needed, have product container or label at hand. Consult the National Poisons Centre Phone: 0800 764 766 [0800 POISON] or a doctor in every case of suspected poisoning.

Ingestion: If swallowed, do NOT induce vomiting. Obtain immediate medical advice. If vomiting occurs spontaneously, keep head below hips to prevent aspiration into lungs.

Inhalation: Move the person to fresh air immediately. Keep warm and at rest until recovered. Get medical advice if feeling unwell. Begin artificial respiration if breathing has stopped and get immediate medical assistance.

Skin: If skin contact occurs, remove contaminated clothing and wash skin with soap and water. If skin irritation occurs, get medical advice. Launder contaminated clothing before re-use.

Eyes: Hold eyelids apart and flush the eye continuously with running water for 15 minutes. Remove contact lenses after 5 minutes if present, and easy to do. Continue flushing. Get immediate medical attention if irritation persists.

Notes To Physician: If ingested, material may be aspirated into the lungs and cause chemical pneumonitis. Treat appropriately.

First Aid facilities: Provide eye baths and safety showers close to areas where splashing may occur.

5. FIRE FIGHTING MEASURES

Product is highly flammable liquid and vapour. Shut off product that may ‘fuel’ a fire, if safe to do so. Clear area. Vapour is heavier than air and may spread across ground and distant ignition is possible. Allow trained personnel to attend a fire in progress, providing fire fighters with this Safety Data Sheet. Prevent extinguishing media from escaping to drains and waterways.

Extinguishing Media: Alcohol foam, dry chemical or CO₂. Do NOT use straight streams of water.

Hazards from Combustion Products: Smoke, carbon dioxide and carbon monoxide and incomplete combustion products.

Fire-Fighting Equipment: Wear self-contained breathing apparatus and personal protection clothing. Keep adjacent containers cool by spraying with water.

6. ACCIDENTAL RELEASE MEASURES

Avoid contact with spilled material. Isolate and evacuate area. Wear personal protective equipment. Prevent entry by unnecessary or unprotected personnel. If possible, isolate or remove sources of ignition. Prevent product from escaping to drains and waterways. Product will float on water. Contain leaking packaging in a containment vessel. Prevent any vapours from building up in confined areas. Ensure that drain valves are closed at all times. Clean up and report spills immediately to relevant authorities.
Major Land Spill:
- Stop leak if you can do so safely.
- Eliminate sources of ignition.
- Contain the spilled product.
- Prevent product from entering sewers, watercourses, or low-lying areas.
- Warn occupants in downwind areas of possible hazards.
- Keep the public away from the area.
- Advise authorities if substance has entered a watercourse or sewer or has contaminated soil or vegetation.
- Use clean non-sparking tools. All equipment must be grounded.
- Recover product by containing and collecting methods. For liquids: use a flame-proof pump or hand pump – or collect with suitable absorbent material, e.g. dry earth, sand or non-combustible material.
- Consult an expert on disposal of recovered material and ensure conformity to local disposal regulations.
- See “First Aid Measures” and “Stability and Reactivity”.

Major Water Spill
- Stop leak if you can do so safely.
- Eliminate sources of ignition.
- Warn occupants and shipping in downwind areas of possible hazards.
- Notify the port or relevant authority and keep the public away from the area.
- Confine the spill if possible.
- Remove the product from the surface by skimming or with suitable absorbent material.
- Consult an expert on disposal of recovered material and ensure conformity to local disposal regulations.
- See “First Aid Measures” and “Stability and Reactivity”.

7. HANDLING AND STORAGE

Handling: Liquid and vapour are highly flammable. No smoking. Wear personal protective equipment. Avoid breathing vapours or contact with skin, eyes or clothing. Use outdoors or in well ventilated area. Wash thoroughly after handling and before rest breaks or meals.

Keep container closed when not in use. Handle containers with care. Do not open near naked flame, sources of heat or ignition. Open slowly to control possible pressure release. No splash filling. Material will accumulate static charge which may cause an electrical spark (ignition source). Use bonding and/or earthing measures to avoid discharge (electrical spark) but note this may not eliminate hazard. Electrostatic charges may be generated when pumping. Restrict line velocity.

Storage: Store locked up in a cool, dry place well ventilated place away from direct sunlight and incompatible substances. Do not pressurise, cut, heat or weld containers. This product will fuel a fire in progress.

Compatible Materials: Carbon steel, stainless steel, polyethylene, polypropylene, polyester, Teflon.
Incompatible Materials: Natural rubber, butyl rubber, EDPM, polystyrene, PVC, polyacrylonitrile.

8. EXPOSURE CONTROLS/ PERSONAL PROTECTION

Exposure Guidelines: A Workplace Exposure Standards (WES) have been set for components in this substance. The time-weighted average concentration (TWA) is the highest allowable exposure concentration in an eight-hour day for a five-day working week. The short-term exposure limit (STEL) is the maximum allowable exposure concentration at any time.

<table>
<thead>
<tr>
<th>White spirits</th>
<th>WES-TWA</th>
<th>WES-STEL</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cyclohexane</td>
<td>100 ppm (350 mg/m³)</td>
<td>300 ppm (1050 mg/m³)</td>
</tr>
<tr>
<td>Heptane</td>
<td>400 ppm (1640 mg/m³)</td>
<td>500 ppm (2050 mg/m³)</td>
</tr>
<tr>
<td>Hexane</td>
<td>20 ppm (72 mg/m³)</td>
<td>-</td>
</tr>
<tr>
<td>Methylcyclohexane</td>
<td>400 ppm (1640 mg/m³)</td>
<td>-</td>
</tr>
<tr>
<td>Octane</td>
<td>300 ppm (1400 mg/m³)</td>
<td>-</td>
</tr>
</tbody>
</table>

Supplier recommendation for product: Total hydrocarbons, vapour RCP-TWA 1000 mg/m³

Engineering Controls: The use of local exhaust ventilation 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 (PPE): Where concentrations in air may exceed the limits described in the 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. For high airborne concentrations, use an approved supplied-air respirator operated in positive pressure mode. Always wear chemical splash goggles or safety glasses with side shields when handling this product. Wear chemical/oil resistant clothing with long sleeves and long trousers or coveralls, and enclosed footwear or safety boots. Wear chemical resistant gloves, e.g. nitrile.
### 9. PHYSICAL AND CHEMICAL PROPERTIES

<table>
<thead>
<tr>
<th>Property</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Form</td>
<td>Liquid</td>
</tr>
<tr>
<td>Colour</td>
<td>Clear, colourless</td>
</tr>
<tr>
<td>Odour</td>
<td>Petroleum</td>
</tr>
<tr>
<td>Boiling point (°C)</td>
<td>78 - 110</td>
</tr>
<tr>
<td>Flash point (°C)</td>
<td>-15</td>
</tr>
<tr>
<td>Evaporation rate (nBuAc = 1)</td>
<td>6</td>
</tr>
<tr>
<td>Explosive Limits in Air (%)</td>
<td>1 - 7</td>
</tr>
</tbody>
</table>

The values listed are indicative of this product’s physical and chemical properties.

### 10. STABILITY AND REACTIVITY

- **Chemical Stability:** Stable at room temperature and pressure.
- **Conditions to avoid:** Heat, sparks, open flames and other ignition sources.
- **Hazardous decomposition products:** No decomposition products except on burning. See “Fire Fighting Measures”.
- **Hazardous reactions:** Strong oxidizing agents.
- **Hazardous Polymerisation:** Will not occur.

### 11. TOXICOLOGICAL INFORMATION

#### Potential Health Effects:

- **Eye:** This product is slightly irritating to eyes, with short lasting discomfort, but will not permanently damage the eye tissue.
- **Skin:** This product is irritating to the skin.
- **Ingestion:** May be fatal if swallowed and enters airways. Small amounts of liquid aspirated into the lungs during ingestion, or from vomiting, may cause chemical pneumonitis, or pulmonary oedema.
- **Inhalation:** May be irritating to eyes, nose, throat and lungs. The inhalation of vapours will cause narcotic effects, dizziness and drowsiness. Continued inhalation may result in unconsciousness, coma and/or death.
- **Chronic Effects:** Central nervous system depression with symptoms including headaches, dizziness and nausea.

#### Toxicological Information:

<table>
<thead>
<tr>
<th>Compound</th>
<th>Toxicity Data</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cyclohexane</td>
<td>Oral (mouse) LD&lt;sub&gt;50&lt;/sub&gt; 813 mg/kg</td>
</tr>
<tr>
<td></td>
<td>Inhalation (rat) LC&lt;sub&gt;50&lt;/sub&gt; 13.9 mg/L</td>
</tr>
<tr>
<td></td>
<td>LC&lt;sub&gt;50&lt;/sub&gt; (4hr) 1000 ppm</td>
</tr>
<tr>
<td>Heptane</td>
<td>Intravenous (mouse) LD&lt;sub&gt;50&lt;/sub&gt; 222 mg/kg</td>
</tr>
<tr>
<td></td>
<td>Inhalation (human) LC&lt;sub&gt;50&lt;/sub&gt; (4hr) 1000 ppm</td>
</tr>
<tr>
<td>Methylcyclohexane</td>
<td>Oral (mouse) LD&lt;sub&gt;50&lt;/sub&gt; 2250 mg/kg</td>
</tr>
</tbody>
</table>

### 12. ECOLOGICAL INFORMATION

#### Aquatic toxicity

- **Ecotoxicity Data:** Product classified as toxic in the aquatic environment with long-lasting effects.

<table>
<thead>
<tr>
<th>Compound</th>
<th>Ecotoxicity Data</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cyclohexane</td>
<td>Daphnia magna EC&lt;sub&gt;50&lt;/sub&gt; (48 hr) 3.78 mg/L</td>
</tr>
<tr>
<td>Heptane</td>
<td>Fathead minnow LC&lt;sub&gt;50&lt;/sub&gt; (96 hr) 2.5 mg/L</td>
</tr>
<tr>
<td>Methylcyclohexane</td>
<td>Daphnia magna EC&lt;sub&gt;50&lt;/sub&gt; (48 hr) 3.9 mg/L</td>
</tr>
</tbody>
</table>

#### Persistence/degradability:

- Expected to be readily biodegradable. Product contains some components that may be more persistent (cyclohexane) or have potential to bioaccumulate (heptane).

#### Mobility:

- Product is highly volatile and mobile in soil. Will evaporate to air if released in water. Not expected to partition to sediment and wastewater solids.

The Environmental Exposure Limit in Air – EEL (Air): Not available.

The Environmental Exposure Limit for Water – EEL (Water): Not available.
13. DISPOSAL CONSIDERATIONS

Recover or recycle product whenever possible. Packaging may still contain product residue that may be harmful. Ensure that empty packaging is managed in accordance with Dangerous Goods and HSNO regulations.

This product is not suitable for disposal by either landfill or via municipal sewers, drains, natural streams or rivers. This product is ashless and can be incinerated in a regulated facility. In the absence of a designated industrial incinerator, this product should be treated and disposed through chemical waste treatment, or considered for use in solvent recycling.

14. TRANSPORT REGULATIONS

Dangerous Goods Segregation

Proper Shipping Name: HYDROCARBONS, LIQUID, N.O.S.

UN Number: 3295
Class: 3
Sub risk: -
Packing Group: II
HAZCHEM: 3YE

15. REGULATORY INFORMATION

EPA New Zealand Approval Code: HSR002650; Solvents (Flammable) Group Standard 2006.
HSNO Controls: Refer www.epa.govt.nz for information on Controls.

Approved Handler: When present in quantities greater than 250 L (when in containers greater than 5 L) or 500 L (when in containers up to and including 5 L), a HSNO 3.1B substance must be—
(a) under the personal control of an approved handler who holds a current test certificate to manage HSNO class 3 substances; or
(b) secured so that a person cannot gain access to the substance without tools, keys, or any other device used for operating locks.

Site and Storage Controls: Trigger quantities.
Location and transit depot test certification
100 L (closed containers greater than 5 L)
250 L (closed containers up to and including 5 L)
50 L (open containers)

Hazardous atmosphere zone
100 L (closed containers)
25 L (decanting)
5 L (open occasionally)
1 L (open containers in continuous use)

Fire extinguishers
250 L

Response plans and secondary containment
1,000 L

Signage
250 L

Passenger Service Vehicle: Not to exceed 2.5L per package.
Safety Data Sheet: Required.
Child Resistant Packaging: Required for packaging <2.5 L.
Packaging: UN Pack Group II. For exception refer to Group Standard approval,
16. OTHER INFORMATION

Issue Date: 24/09/19
Reasons for Issue:

Abbreviations

- CAS No.: Chemical Abstracts Service Number
- EPS: Environmental Risk Management Authority
- HSNO: Hazardous Substances & New Organisms
- STEL: Short Term Exposure Limit
- TWA: Time Weighted Average
- WES: Workplace Exposure Standard

References:
- Chemical Classification and Information database: www.epa.govt.nz
- Supplier Safety Data Sheets

Before using any product, read its label carefully and ensure that you understand its contents. This information is, to the best of our knowledge and belief, accurate and reliable at the date of publication. The information relates only to the specific material designated and may not be valid for such material if it is used in combination with any other material(s). Hydraulink Fluid Connectors Ltd disclaims any liability for loss or damage suffered from the use of this information. This does not affect your statutory rights. It is the user’s responsibility to satisfy themselves as to the suitability and completeness of such information for his/her own particular use.

END OF SAFETY DATA SHEET