

Material Safety Data Sheet

1. IDENTIFICATION OF MATERIAL AND SUPPLIER

PRODUCT NAME: BRAKE CLEANER

Synonyms: None

Recommended Use: Heavy duty parts and brake cleaner

Supplier: Minehan Agencies Pty Ltd

Address: 29 Camuglia Street GARBUTT Townsville Queensland Australia 4814

Telephone: (07) 4774 4626

Facsimile: (07) 4774 4616

E-mail: inquiry@minehanagencies.com.au

Emergency telephone number: 0408 777 800 (24Hrs Australia)

2. HAZARDS IDENTIFICATION

This product is classified as:

Hazardous Substance according to criteria of the National Occupational Health and Safety Commission (NOHSC).

Dangerous Goods according to the Australian Dangerous Goods Code (ADG Code).

| | |
|--|---|
| Approved Criteria Classification (Calculated). | FLAMMABLE R10, HARMFUL R65 R48/20 Safety Phrases S1/2, S36/37/39 |
| SUSDP Classification | Not Classified |
| ADG Classification | Class 3 (Flammable Liquid.) |
| Un Number | 1208 |

EMERGENCY OVERVIEW

| | |
|-----------------------------|--|
| COLOUR | Clear |
| PHYSICAL DESCRIPTION | LIQUID |
| ODOUR | Solvent |
| MAJOR HEALTH HAZARD | Flammable. May cause lung damage. Prolonged exposure harmful. Eye, Skin, & Respiratory tract irritant. |

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POTENTIAL HEALTH EFFECTS

Inhalation: Short term exposure. Vapour is irritating to nose and throat and may cause nausea, vomiting, difficulty breathing, headache, drowsiness, symptoms of drunkenness, and lung congestion. **Long term Exposure.** Possible lung and respiratory tract damage. May trigger pre-existing respiratory complaints. Repeated overexposure may cause progressive and potentially irreversible damage to the peripheral nervous system, particularly in arms and legs.

Skin Contact: Short term exposure. Defatting and drying of Skin **Long term exposure.** Prolonged use may cause irritation, redness and dermatitis.

Eye Contact: Short term exposure. Will cause irritation and may damage eye tissue.. **Long-term exposure.** Not know.

Ingestion: Short term exposure. Headaches, nausea, and severe abdominal pain may result. Vomiting may cause product to be aspirated into the lungs possibly resulting in chemical pneumonitis. **Long-term exposure.** Not known

Carcinogen Status

| | |
|-------|----------------|
| NOHSC | Not Classified |
| NTP | Not Classified |
| IARC | Not Classified |

3. COMPOSITION / INFORMATION ON INGREDIENTS

| CHEMICAL ENTITY | CAS No | PROPORTION W/W % |
|--|------------|------------------|
| Isohexane | 64742-49-0 | 70-80% |
| Isopropanol | 67-63-0 | 20-30% |
| Other ingredients determined not to be hazardous | | to 100% |

4. FIRST AID MEASURES

Poison Information Centres in each State capital city can provide additional assistance for Scheduled Poisons: Phone (Australia 13 1126).

Inhalation: Remove victim from exposure. Remove contaminated clothing and loosen remaining clothing. Perform artificial respiration if needed. Allow patient to assume most comfortable position and keep warm. Seek medical attention.

Skin Contact: Remove contaminated clothing. Wash contaminated skin for at least 15-20mins with of water, or until no evidence of the chemical remains. If swelling, redness, blistering, or irritation occurs seek medical advice. Wash clothing before re-use.

Eye Contact: Immediately irrigate with copious quantities of water for at least 15 minutes. Eyelids to be held open. If present, remove contact lenses. Seek medical attention.

Ingestion: Immediately rinse mouth with water. Do NOT induce vomiting. Seek urgent medical attention.

Notes to Physician: Treat symptomatically.

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5. FIRE FIGHTING MEASURES

Flash Point: -26°C

Fire and Explosion Hazard: Flammable Liquid. Vapour may form explosive mixtures with air. Closed containers exposed to heat may violently explode.

Specific Hazards: Sealed containers may explode in a large fire.

Fire Fighting: Move containers from fire area if it can be done without risk. Cover exposed liquid with foam. Avoid inhalation of material or combustion by-products. Stay upwind and keep out of low areas. **Suitable Extinguishing Media:** Use foam, CO₂ or dry chemical powder to extinguish surrounding fire.

Hazardous Decomposition in Products: On burning may emit fumes including carbon monoxide, carbon dioxide, and partially burned hydrocarbons. Fire fighters to wear self-contained breathing apparatus if risk of exposure to vapour or products of combustion.

Hazchem Code: 3[Y]E

6. ACCIDENTAL RELEASE MEASURES

Flammable liquid. Remove all ignition sources. Stop leak if possible without personal risk. Wear protective equipment to prevent personal injury (see section 8). **Small spills (< 5L)** Remove all ignition sources. Cover with an absorbent material (soil, sand or other inert material). Collect and seal in properly labelled containers for disposal. Hose down area with large amounts of dilute detergent. Caution, Slip Hazard. **Large spills (>5L) Remove all ignition sources. Consider evacuation of area.** Prevent run off into drains and waterways. Dam material. Cover with foam to prevent ignition then apply absorbent material. Collect and seal in properly labelled containers for disposal. Hose down area with large amounts of dilute detergent. Keep unnecessary people away, isolate hazard area and deny entry. If contamination of sewers or waterways has occurred, advise local emergency services.

7. HANDLING AND STORAGE

Store in a well-ventilated area away from heat and ignition sources. Store in a cool, dry place and out of direct sunlight. Store away from foodstuffs, strong oxidizing agents, and strong acids. Store in original containers. Do not store in plastic containers. Keep containers closed when not in use – check regularly for leaks. This material is a Class 3 Flammable liquid and must be stored, maintained and used in accordance with the relevant regulations. Handle using good industrial hygiene practices (see section 8 on personal protection).

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

Exposure Limits: No value has been assigned for this specific material by NOHSC. However exposure limits for ingredients are shown below

| Ingredient | TWA | STEL | Notices |
|-------------|--------|--------|---------|
| Isohexane | 500ppm | 500ppm | |
| Isopropanol | 400ppm | 500ppm | |
| | | | |
| | | | |

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TWA – the Time-Weighted Average airborne concentrations over an eight hour working day, for a five day week over an entire working life.

STEL (Short Term Exposure Limit) – the average airborne concentration over a 15 minute period which should not be exceeded at any time during a normal eight hour work day. According to current knowledge, these concentrations should neither impair the health of, nor cause undue discomfort to, nearly all workers.

Sk Notice – absorption through the skin may be a significant source of exposure. The exposure standard is invalidated if such contact should occur.

Sen Notice- Sensitiser. The substance can cause a specific immune response in some people. An affected individual may subsequently react to minute levels of that substance.

These exposure standards are guides to be used in the control of occupational health hazards. All atmospheric contamination should be kept to as low a level as is workable. Exposure standards should not be used as fine dividing lines between safe and dangerous concentrations of chemicals. They are not a measure of relative toxicity.

Biological Limit Value: No biological limit allocated

Engineering Controls: Use only in well ventilated areas. Exhaust ventilation may be required to prevent build-up of flammable vapours and to maintain air concentrations below Exposure Standards. Flameproof equipment is necessary in any area where product is being used. Product transfer and storage equipment must be earthed. Keep containers closed when not in use.

Personal Protection Equipment

Respirator Type (AS 1716): If inhalation risk exists, wear organic vapour respirator meeting the requirements of AS/NZS 1715 and AS/NZS 1716.

Eye Protection: Safety glasses with side shields or goggles should be worn as described in Australian Standard AS/NZS 1337 – Eye Protectors for Industrial Applications.

Glove Type: Impervious PVC or rubber gloves should be worn.

Clothing: Suitable protective clothing should be worn eg: cotton overalls buttoned at neck and wrist.

Work/Hygienic Practices: Always wash hands before smoking, eating, drinking or using the toilet.

9. PHYSICAL AND CHEMICAL PROPERTIES

| | | | |
|------------------|---------------------|----------------------|---------------------------|
| Physical State | Liquid | Water Solubility | <0.1% |
| Colour | Clear | Vapour Pressure | 26.1 kPa @20°C |
| Odour | Solvent | Vapour Density | Above 1 (air =1) |
| Boiling Point | 55-62 °C | Evaporation Rate | Faster than butyl acetate |
| Melting Point | NA | % Volatiles | 100% |
| Freezing Point | NA | Flash Point | -26 °C |
| Specific Gravity | 0.71g/ml (water =1) | Flammability Limits | LEL 1.1 %- UEL7.4 % |
| Ph (neat) | NA | Ignition Temperature | NA |

10. STABILITY AND REACTIVITY

Reactivity: Stable at normal temperatures and pressure.

Conditions to Avoid: Avoid contact with incompatible materials.

Incompatibilities: Strong Oxidising Agents, Strong Acids

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Explosive reactions may occur with strong oxidising agents.
Violent heat producing reactions may occur with strong acids.

Hazardous Decomposition: Thermal decomposition products include, sulphur dioxide, carbon dioxide, carbon monoxide, and Nitrous oxides.

Polymerisation: Will not polymerise.

11. TOXICOLOGICAL INFORMATION

Brake Cleaner

Local Effects: Irritant: Inhalation, skin, eyes, and ingestion.

Target Organs: Heart, Blood, CNS, and Kidneys and Liver.

Classification of Hazardous Ingredients

| Ingredients | R Phrases |
|-------------|----------------------|
| Isohexane | R65 R48/20 R36/37/38 |
| Isopropanol | R36/37/38 |
| | |
| | |

Individual Ingredient Information

IsoHexane

Chronic Toxicity Data: Person with pre-existing liver impairment, skin and respiratory disorders may be at increased risk from exposure. Concurrent absorption of this product and some drugs may cause adverse health effects.

Potentiated effects. Will occur in conjunction with MEK (Methyl Ethyl Ketone). This means that the health effects described in overexposure (Nausea, dizziness, headaches) will be experienced to a greater degree when used in conjunction with this product.

Lowest Published toxic dose: Oral Rat 10gm/kg/4 week intermittent

Isopropanol

Irritation Data: Eye Rabbit 100mg severe, Eye Rabbit 10mg moderate.

Toxicity Data: Lowest published lethal dose, Oral human 3579mg/kg

Local Effects: Decreased pulse rate, Arrhythmias, Coma

Acute Toxicity Level: Lowest published toxic dose, Oral human 223mg/kg,

Target Organs: Heart, & Kidneys

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Mutagenic Data: Inhalation Rat 1030 ug/m³/16week

Reproduction Effects Data: lowest toxic concentration 3500ppm/7hrs (1-19days) stunted fetus.

12. ECOLOGICAL INFORMATION

General Statement: It is expected that this product will have adverse ecological effects. It is recommended that extreme caution be taken to avoid discharge to waterways, grasslands and other areas with local fauna and flora.

Ecotoxicity: No specific information available for this product however it is expected that this product is toxic to aquatic life and continuous exposure is likely to result in adverse effects in these organisms.

Persistence and Degradability: No specific information available for this product, however it is expected that this product will persist in the environment and not rapidly degrade.

Mobility: No specific information available for this product.

13. DISPOSAL CONSIDERATIONS

Refer to State/Territory Land Waste Management Authority for disposal, show this MSDS for their consideration. Empty containers not to be recycled or used for any other purpose. Dispose in accordance with local regulations.

14. TRANSPORTATION INFORMATION

| | |
|-----------------------------|-------------------------|
| UN No | 1208 |
| Proper Shipping Name | Flammable Liquid N.O.S. |
| ADG Code | Class 3 |
| Sub Risk | No sub risk |
| Packing Group | II |
| Special Precautions | None |
| Hazchem Code | 3[Y]E |
| EPG | 3A1 |
| Segregations | Yes |

15. REGULATORY INFORMATION

SUSDP: Not Classified

AICS: All of the constituents of this material are listed on the ACIS.

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16. OTHER INFORMATION

Issue Date: March 2014

Reason(s) For Issue: Updated to comply with new NOHSC standards for MSDS preparation.

Labelling Details

First line of Label must read: CAUTION Flammable Liquid

Other statements to include

| | |
|------------------|--|
| R10 | Flammable Liquid |
| R20//22 | Harmful by inhalation and if swallowed |
| S1/2 | Keep locked up and out of reach of children. |
| S36/37/39 | Wear Suitable protective clothing, gloves and eye/face protection |
| S45 | In case of accident or if you feel unwell, seek medical advice immediately (show the label wherever possible). |

Abbreviations & Acronyms

SUSPD: Standard for the Uniform Scheduling of Drugs and Poisons

ADG: Australian Code for the Transport of Dangerous Goods by Road and rail

N.O.S. Not Otherwise Specified

CAS No: Chemical Abstracts Service Registry Number

UN No: United Nations Number

R-Phrases: Risk Phrases

S-Phrases: Safety Phrases

HAZCHEM Code: Hazardous Chemical emergency action code

NOHSC: National Occupational Health and Safety Commission

IARC: International Agency for Research into Cancer

ACIS: Australian Inventory of Chemical Substances

NTP: National Toxicology Program (USA)

Literary references:

Approved Criteria for Classifying Hazardous Substances [NOHSC: 1008(41999)]

National Code of Practice for the Preparation of Material Safety Data Sheets 2nd Edition [NOHSC: 2011(2003)]

Exposure Standards for Atmospheric Contaminants in the Occupational Environment

Guidance Note [NOHSC: 3008(1995)] National Exposure Standards [NOHSC: 10005(1999)]

List of Designated Hazardous Substances [NOHSC: 10005(1999)]

Standard for the Uniform Scheduling of Drugs and Poison No. 17

The Australian Code for the Transport of Dangerous Goods by Road and Rail EDITION 6

Disclaimer

This MSDS summarises at the date of issue our best knowledge of the health and safety hazard information of the product and in particular how to safely handle and use the product in the workplace.

Since Minehan Agencies Pty Ltd cannot anticipate or control the conditions under which the product may be used, each user must, prior to usage, review this MSDS in the context of how the user intends to handle and use the product in the workplace i.e. a risk analysis.

If clarification or further information is needed to ensure that an appropriate assessment can be made, the user should contact Minehan Agencies Pty Ltd.