



SAFETY DATA SHEET

Product Name **BRAKLEEN (AEROSOL)**

1. IDENTIFICATION OF THE MATERIAL AND SUPPLIER

Supplier Name CRC INDUSTRIES (AUST) PTY LIMITED
Address 9 Gladstone Road , Castle Hill , NSW, AUSTRALIA, 2154
Telephone (02) 9849 6700
Fax (02) 9680 4914
Emergency 13 11 26 (PIC)
Email info@crcind.com.au
Web Site http://www.crcindustries.com.au

Synonym(s) CRC BRAKLEEN (AEROSOL) (FORMERLY) • SOLVENT BRAKE CLEANER

Use(s) BRAKE CLEANER • CLEANING AGENT

SDS Date 27 Oct 2011

2. HAZARDS IDENTIFICATION

CLASSIFIED AS HAZARDOUS ACCORDING TO SAFE WORK AUSTRALIA CRITERIA

RISK PHRASES

R11 Highly flammable.
R40 Limited evidence of a carcinogenic effect.

SAFETY PHRASES

S23 Do not breathe gas/fumes/vapour/spray (where applicable).
S24/25 Avoid contact with skin and eyes.
S36/37 Wear suitable protective clothing and gloves.
S45 In case of accident or if you feel unwell seek medical advice immediately (show the label where possible).
S53 Avoid exposure - obtain special instructions before use.

CLASSIFIED AS A DANGEROUS GOOD BY THE CRITERIA OF THE ADG CODE

UN No. 1950 **DG Class** 2.1 **Subsidiary Risk(s)** None Allocated
Packing Group None Allocated **Hazchem Code** 2YE

3. COMPOSITION/ INFORMATION ON INGREDIENTS

| Ingredient | Formula | CAS No. | Content |
|---|-----------------|------------|---------|
| HYDROTREATED LIGHT NAPHTHA (PETROLEUM) | Not Available | 64742-49-0 | 30-60% |
| TETRACHLOROETHYLENE (PERCHLOROETHYLENE) | C2-Cl4 | 127-18-4 | 30-60% |
| DICHLOROMETHANE (METHYLENE CHLORIDE) | C-H2-Cl2 | 75-09-2 | 10-30% |
| LIQUEFIED PETROLEUM GAS (LPG) | C3H8/C3H6/C4H10 | 68476-85-7 | 10-30% |

4. FIRST AID MEASURES

| | |
|-------------------------|--|
| Eye | If in eyes, hold eyelids apart and flush continuously with running water. Continue flushing until advised to stop by a Poisons Information Centre, a doctor, or for at least 15 minutes. |
| Inhalation | If inhaled, remove from contaminated area. To protect rescuer, use a Type A (Organic vapour) respirator or an Air-line respirator (in poorly ventilated areas). Apply artificial respiration if not breathing. |
| Skin | If skin or hair contact occurs, remove contaminated clothing and flush skin and hair with running water. Continue flushing with water until advised to stop by a Poisons Information Centre or a doctor. |
| Ingestion | For advice, contact a Poison Information Centre on 13 11 26 (Australia Wide) or a doctor (at once). If swallowed, do not induce vomiting. Ingestion is considered unlikely due to product form. |
| Advice to Doctor | Treat symptomatically. |

5. FIRE FIGHTING MEASURES

| | |
|---------------------------|--|
| Flammability | Highly flammable. May evolve toxic gases (chlorides, fluorides, phosgene, carbon oxides, hydrocarbons) when heated to decomposition. Vapour may form explosive mixtures with air. Eliminate all ignition sources including cigarettes, open flames, spark producing switches/tools, pilot lights, heaters, naked lights etc. when handling. Aerosol cans may explode when heated above 50°C. |
| Fire and Explosion | Evacuate area and contact emergency services. Toxic gases may be evolved in a fire situation. Remain upwind and notify those downwind of hazard. Wear full protective equipment including Self Contained Breathing Apparatus (SCBA) when combating fire. Use waterfog to cool intact containers and nearby storage areas. |
| Extinguishing | Dry agent, carbon dioxide or foam. Prevent contamination of drains or waterways. |
| Hazchem Code | 2YE |

6. ACCIDENTAL RELEASE MEASURES

| | |
|-----------------|--|
| Spillage | Contact emergency services where appropriate. Use personal protective equipment. Clear area of all unprotected personnel. Ventilate area where possible. Contain spillage, then cover / absorb spill with non-combustible absorbent material (vermiculite, sand, or similar), collect and place in suitable containers for disposal. Eliminate all ignition sources. |
|-----------------|--|

7. STORAGE AND HANDLING

| | |
|-----------------|---|
| Storage | Store in a cool, dry, well ventilated area, removed from oxidising agents, acids, alkalis, active metals, amines, heat or ignition sources and foodstuffs. Ensure containers are adequately labelled, protected from physical damage and sealed when not in use. |
| Handling | Before use carefully read the product label. Use of safe work practices are recommended to avoid eye or skin contact and inhalation. Observe good personal hygiene, including washing hands before eating. Prohibit eating, drinking and smoking in contaminated areas. |

8. EXPOSURE CONTROLS/ PERSONAL PROTECTION

Exposure Stds

| Ingredient | Reference | TWA | | STEL | |
|-------------------------------|-----------|------|-------------------|------|-------------------|
| | | ppm | mg/m ³ | ppm | mg/m ³ |
| Liquefied petroleum gas (LPG) | SWA (AUS) | 1000 | 1800 | 1000 | 1800 |
| Methylene chloride | SWA (AUS) | 50 | 174 | -- | -- |
| Perchloroethylene | SWA (AUS) | 50 | 340 | 150 | 1020 |

Biological Limits

| Ingredient | Reference | Determinant | Sampling Time | BEI |
|---|-----------|--|---------------------------------|----------|
| DICHLOROMETHANE (METHYLENE CHLORIDE) | ACGIH BEI | Dichloromethane in urine | End of shift | 0.3 mg/L |
| TETRACHLOROETHYLENE (PERCHLOROETHYLENE) | ACGIH BEI | Tetrachloroethylene in end-exhaled air | Prior to last shift of workweek | 5 ppm |
| | ACGIH BEI | Tetrachloroethylene in blood | Prior to last shift of workweek | 0.5 mg/L |

Product Name BRAKLEEN (AEROSOL)

| Ingredient | Reference | Determinant | Sampling Time | BEI |
|------------|-----------|-------------------------------|---------------------------------|----------|
| | ACGIH BEI | Trichloroacetic acid in urine | End of shift at end of workweek | 3.5 mg/L |

Engineering Controls Avoid inhalation. Use in well ventilated areas. Where an inhalation risk exists, mechanical explosion proof extraction ventilation is recommended. Flammable/explosive vapours may accumulate in poorly ventilated areas. Vapours are heavier than air and may travel some distance to an ignition source and flash back. Maintain vapour levels below the recommended exposure standard.

PPE Wear splash-proof goggles and viton (R) or PVA gloves. When using large quantities or where heavy contamination is likely, wear: coveralls. Where an inhalation risk exists, wear: a Type A-Class P1 (Organic gases/vapours and Particulate) or an Air-line respirator.

**9. PHYSICAL AND CHEMICAL PROPERTIES**

| | | | |
|---------------------------------|---|----------------------------------|------------------|
| Appearance | CLEAR COLOURLESS LIQUID (AEROSOL DISPENSED) | Solubility (water) | SLIGHTLY SOLUBLE |
| Odour | ETHEREAL ODOUR | Specific Gravity | 1.07 |
| pH | NOT AVAILABLE | % Volatiles | 100 % |
| Vapour Pressure | 26.6 kPa @ 20°C | Flammability | HIGHLY FLAMMABLE |
| Vapour Density | > 1 (Air = 1) | Flash Point | 10°C |
| Boiling Point | 40°C (Initial) | Upper Explosion Limit | 22 % |
| Melting Point | NOT AVAILABLE | Lower Explosion Limit | 1.4 % |
| Evaporation Rate | NOT AVAILABLE | Decomposition Temperature | NOT AVAILABLE |
| Autoignition Temperature | NOT AVAILABLE | Viscosity | NOT AVAILABLE |
| Partition Coefficient | NOT AVAILABLE | | |

10. STABILITY AND REACTIVITY

| | |
|---|--|
| Material to Avoid | Incompatible with oxidising agents (eg. hypochlorites), acids (eg. nitric acid), alkalis (eg. hydroxides), metals, heat and ignition sources. Will attack most forms of plastic. |
| Hazardous Decomposition Products | May evolve toxic gases (chlorides, fluorides, phosgene, carbon oxides, hydrocarbons) when heated to decomposition. |

11. TOXICOLOGICAL INFORMATION

| | |
|------------------------------|---|
| Health Hazard Summary | Toxic - irritant. This product has the potential to cause adverse health effects. Use safe work practices to avoid eye or skin contact and inhalation. Over exposure may result in central nervous system (CNS), liver, kidney and lung damage. Tetrachloroethylene is classified as probably carcinogenic to humans (IARC Group 2A), and dichloromethane is classified as a possible human carcinogen (IARC Group 2B). Individuals with pre-existing respiratory impairment (eg asthmatics) or nervous system, liver and kidney disease are advised to avoid exposure. |
| Eye | Irritant. Contact may result in irritation, lacrimation, pain, redness and conjunctivitis. May result in burns with prolonged contact. |
| Inhalation | Toxic - irritant. Over exposure may result in irritation of the nose and throat, coughing, nausea, dizziness and headache. High level exposure may result in breathing difficulties, anaesthesia, cardiac arrhythmias, pulmonary oedema, unconsciousness and possible respiratory failure. Chronic exposure may result in kidney, liver and CNS damage. |
| Skin | Irritant. Contact may result in drying and defatting of the skin, rash and dermatitis. May be absorbed through skin with harmful effects. |
| Ingestion | Toxic - irritant. Ingestion may result in nausea, vomiting, abdominal pain, dizziness, fatigue and diarrhoea. Ingestion of large quantities may result in liver and kidney damage, and unconsciousness. Aspiration may result in chemical pneumonitis and pulmonary oedema. |

Product Name **BRAKLEEN (AEROSOL)**

Toxicity Data TETRACHLOROETHYLENE (PERCHLOROETHYLENE) (127-18-4)
LCLo (Inhalation): 4000 ppm/4 hour (rat)
LD50 (Ingestion): 2629 mg/kg (rat)
LD50 (Intraperitoneal): 2100 mg/kg (dog)
LD50 (Skin): 65 gm/kg (mouse)
LDLo (Ingestion): 4000 mg/kg (dog)
LDLo (Subcutaneous): 2200 mg/kg (rabbit)
TDLo (Ingestion): 195 g/kg/50 Weeks intermittent (mouse - cancer)
DICHLOROMETHANE (METHYLENE CHLORIDE) (75-09-2)
LC50 (Inhalation): 52 g/m³ (rat)
LCLo (Inhalation): 5000 ppm/2 hours (guinea pig)
LD50 (Ingestion): 1600 mg/kg (rat)
LD50 (Subcutaneous): 6460 mg/kg (mouse)
LDLo (Ingestion): 357 mg/kg human (CNS effects)
LDLo (Subcutaneous): 2700 mg/kg (rabbit)
TCLo (Inhalation): 500 ppm/8 hours (human - euphoria)

12. ECOLOGICAL INFORMATION

Environment If dichloromethane released into the atmosphere will degrade by reaction with hydroxyl radicals (half life: 19 to 194 days). Dichloromethane evaporates from the near surface soil and water surface. Biodegradation is possible but will probably be quite slow when compared with the evaporation rate.

13. DISPOSAL CONSIDERATIONS

Waste Disposal For small amounts absorb contents with sand or similar and dispose of to an approved landfill site. Do not puncture or incinerate aerosol cans. Contact the manufacturer for additional information.

Legislation Dispose of in accordance with relevant local legislation.

14. TRANSPORT INFORMATION



CLASSIFIED AS A DANGEROUS GOOD BY THE CRITERIA OF THE ADG CODE

| | | | | | |
|----------------------|----------------|---------------------|-----|---------------------------|----------------|
| Shipping Name | AEROSOLS | | | | |
| UN No. | 1950 | DG Class | 2.1 | Subsidiary Risk(s) | None Allocated |
| Packing Group | None Allocated | Hazchem Code | 2YE | GTEPG | 2D1 |
| IATA | | | | | |
| Shipping Name | AEROSOLS | | | | |
| UN No. | 1950 | DG Class | 2.1 | Subsidiary Risk(s) | None Allocated |
| Packing Group | None Allocated | | | | |
| IMDG | | | | | |
| Shipping Name | AEROSOLS | | | | |
| UN No. | 1950 | DG Class | 2.1 | Subsidiary Risk(s) | None Allocated |
| Packing Group | None Allocated | | | | |

15. REGULATORY INFORMATION

Poison Schedule Classified as a Schedule 6 (S6) Poison using the criteria in the Standard for the Uniform Scheduling of Drugs and Poisons (SUSDP).

AICS All chemicals listed on the Australian Inventory of Chemical Substances (AICS).

16. OTHER INFORMATION

Additional Information WORK PRACTICES - SOLVENTS: Organic solvents may present both a health and flammability hazard. It is recommended that engineering controls should be adopted to reduce exposure where practicable (for example, if using indoors, ensure explosion proof extraction ventilation is available). Flammable or combustible liquids with

Product Name **BRAKLEEN (AEROSOL)**

explosive limits have the potential for ignition from static discharge. Refer to AS 1020 (The control of undesirable static electricity) and AS 1940 (The storage and handling of flammable and combustible liquids) for control procedures.

SYNERGISM - ANTAGONISM: Ingredients in this product may act together to aggravate or reduce adverse effects. Accordingly the time weighted average concentration (TWA) provided for single ingredients should be considered as a guide only and all due care exercised when handling.

IARC - GROUP 2B - POSSIBLE HUMAN CARCINOGEN: This product contains an ingredient which has demonstrated sufficient evidence to have been classified by the International Agency for Research into Cancer (IARC) as possibly carcinogenic to humans and whose use should be strictly monitored and controlled.

DICHLOROMETHANE VAPOUR may only produce a flammable mixture with air in a vacuum (1.7 bar @ 27°C). It may produce a flammable mixture with pure oxygen between 15.5% and 66.4% dichloromethane.

ABBREVIATIONS:

ACGIH - American Conference of Industrial Hygienists.

ADG - Australian Dangerous Goods.

BEI - Biological Exposure Indice(s).

CAS# - Chemical Abstract Service number - used to uniquely identify chemical compounds.

CNS - Central Nervous System.

EC No - European Community Number.

HSNO - Hazardous Substances and New Organisms.

IARC - International Agency for Research on Cancer.

mg/m³ - Milligrams per Cubic Metre.

NOS - Not Otherwise Specified.

pH - relates to hydrogen ion concentration using a scale of 0 (high acidic) to 14 (highly alkaline).

ppm - Parts Per Million.

RTECS - Registry of Toxic Effects of Chemical Substances.

STEL - Short Term Exposure Limit.

SWA - Safe Work Australia.

TWA - Time Weighted Average.

HEALTH EFFECTS FROM EXPOSURE:

It should be noted that the effects from exposure to this product will depend on several factors including: frequency and duration of use; quantity used; effectiveness of control measures; protective equipment used and method of application. Given that it is impractical to prepare a ChemAlert report which would encompass all possible scenarios, it is anticipated that users will assess the risks and apply control methods where appropriate.

PERSONAL PROTECTIVE EQUIPMENT GUIDELINES:

The recommendation for protective equipment contained within this ChemAlert report is provided as a guide only. Factors such as method of application, working environment, quantity used, product concentration and the availability of engineering controls should be considered before final selection of personal protective equipment is made.

Report Status

This document has been compiled by RMT on behalf of the manufacturer of the product and serves as the manufacturer's Safety Data Sheet ('SDS').

It is based on information concerning the product which has been provided to RMT by the manufacturer or obtained from third party sources and is believed to represent the current state of knowledge as to the appropriate safety and handling precautions for the product at the time of issue. Further clarification regarding any aspect of the product should be obtained directly from the manufacturer.

While RMT has taken all due care to include accurate and up-to-date information in this SDS, it does not provide any warranty as to accuracy or completeness. As far as lawfully possible, RMT accepts no liability for any loss, injury or damage (including consequential loss) which may be suffered or incurred by any person as a consequence of their reliance on the information contained in this SDS.

Prepared By

Risk Management Technologies
5 Ventnor Ave, West Perth
Western Australia 6005
Phone: +61 8 9322 1711
Fax: +61 8 9322 1794
Email: info@rmt.com.au
Web: www.rmt.com.au

Product Name **BRAKLEEN (AEROSOL)**

SDS Date 27 Oct 2011

End of Report