



**The Professional's Choice**

## SAFETY DATA SHEET

### 1. IDENTIFICATION OF THE MATERIAL AND SUPPLIER

#### 1.1 Product identifier

**Product name** CRC BRAKLEEN NF  
**Synonyms** NON FLAMMABLE BRAKLEEN 5087

#### 1.2 Uses and uses advised against

**Uses** BRAKE CLEANER • CLEANING AGENT

#### 1.3 Details of the supplier of the product

**Supplier name** CRC INDUSTRIES (AUST) PTY LIMITED  
**Address** 9 Gladstone Road, Castle Hill, NSW, 2154, AUSTRALIA  
**Telephone** (02) 9849 6700  
**Fax** (02) 9680 4914  
**Email** [info@crcind.com](mailto:info@crcind.com)  
**Website** [www.crcindustries.com.au](http://www.crcindustries.com.au)

#### 1.4 Emergency telephone numbers

**Emergency** 13 11 26 (PIC)

### 2. HAZARDS IDENTIFICATION

#### 2.1 Classification of the substance or mixture

CLASSIFIED AS HAZARDOUS ACCORDING TO SAFE WORK AUSTRALIA CRITERIA

**GHS classifications** Aerosols - Pressurised: Category 3  
Carcinogenicity: Category 2  
Aquatic Toxicity (Chronic): Category 2

#### 2.2 GHS Label elements

**Signal word** WARNING

**Pictograms**



#### Hazard statements

H229 Pressurized container: may burst if heated.  
H351 Suspected of causing cancer.  
H411 Toxic to aquatic life with long lasting effects.

#### Prevention statements

P202 Do not handle until all safety precautions have been read and understood.  
P210 Keep away from heat/sparks/open flames/hot surfaces. No smoking.  
P251 Pressurized container: Do not pierce or burn, even after use.  
P273 Avoid release to the environment.  
P281 Use personal protective equipment as required.

#### Response statements

P308 + P313 IF exposed or concerned: Get medical advice/ attention.  
P391 Collect spillage.

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### Storage statements

P405 Store locked up.  
P410 + P412 Protect from sunlight. Do not expose to temperatures exceeding 50°C.

### Disposal statements

P501 Dispose of contents/container in accordance with relevant regulations.

### 2.3 Other hazards

No information provided.

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## 3. COMPOSITION/ INFORMATION ON INGREDIENTS

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### 3.1 Substances / Mixtures

Ingredient	CAS Number	EC Number	Content
TETRACHLOROETHYLENE (PERCHLOROETHYLENE)	127-18-4	204-825-9	>60%
DICHLOROMETHANE (METHYLENE CHLORIDE)	75-09-2	200-838-9	20 to 40%
CARBON DIOXIDE	124-38-9	204-696-9	5%

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## 4. FIRST AID MEASURES

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### 4.1 Description of 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 Poisons 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.

**First aid facilities** Eye wash facilities and safety shower should be available.

### 4.2 Most important symptoms and effects, both acute and delayed

Dichloromethane is classified as possibly carcinogenic to humans (IARC Group 2B). Individuals with impaired cardiovascular function, or who are heavy drinkers or smokers should avoid exposure as dichloromethane reduces the blood's oxygen carrying capacity.

### 4.3 Immediate medical attention and special treatment needed

Treat symptomatically.

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## 5. FIRE FIGHTING MEASURES

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### 5.1 Extinguishing media

Dry agent, carbon dioxide or foam. Prevent contamination of drains and waterways.

### 5.2 Special hazards arising from the substance or mixture

Non flammable. May evolve toxic gases (chlorides, phosgene, carbon oxides, hydrocarbons) when heated to decomposition. Vapour may form explosive mixtures with air.

### 5.3 Advice for firefighters

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.

### 5.4 Hazchem code

2YE  
2 Fine Water Spray.  
Y Risk of violent reaction or explosion. Wear full fire kit and breathing apparatus. Contain spill and run-off.  
E Evacuation of people in and around the immediate vicinity of the incident should be considered.

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## 6. ACCIDENTAL RELEASE MEASURES

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**6.1 Personal precautions, protective equipment and emergency procedures**

Wear Personal Protective Equipment (PPE) as detailed in section 8 of the SDS.

**6.2 Environmental precautions**

Prevent product from entering drains and waterways.

**6.3 Methods of cleaning up**

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 sources of ignition.

**6.4 Reference to other sections**

See Sections 8 and 13 for exposure controls and disposal.

**7. HANDLING AND STORAGE**

**7.1 Precautions for safe 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.

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

Store in a cool, dry, well ventilated area, removed from incompatible substances, heat or ignition sources and foodstuffs. Ensure aerosol containers/ cans are adequately labelled, protected from physical damage and sealed when not in use. Check regularly for damaged/ leaking containers. Large storage areas should have appropriate ventilation systems.

**7.3 Specific end uses**

No information provided.

**8. EXPOSURE CONTROLS / PERSONAL PROTECTION**

**8.1 Control parameters**

**Exposure standards**

Ingredient	Reference	TWA		STEL	
		ppm	mg/m <sup>3</sup>	ppm	mg/m <sup>3</sup>
Carbon dioxide	SWA (AUS)	5000	9000	30000	54000
Carbon dioxide in coal mines	SWA (AUS)	12500	22500	30000	54000
Methylene chloride	SWA (AUS)	50	174	--	--
Perchloroethylene	SWA (AUS)	50	340	150	1020

**Biological limits**

Ingredient	Determinant	Sampling Time	BEI
DICHLOROMETHANE (METHYLENE CHLORIDE)	Dichloromethane in urine	End of shift	0.3 mg/L
TETRACHLOROETHYLENE (PERCHLOROETHYLENE)	Tetrachloroethylene in end-exhaled air	Prior to shift	3 ppm
	Tetrachloroethylene in blood	Prior to shift	0.5 mg/L

Reference: ACGIH Biological Exposure Indices

**8.2 Exposure controls**

**Engineering controls**

Avoid inhalation. Use in well ventilated areas. Where an inhalation risk exists, mechanical explosion proof extraction ventilation is recommended. Maintain vapour levels below the recommended exposure standard.

**PPE**

<b>Eye / Face</b>	Wear splash-proof goggles.
<b>Hands</b>	Wear PVA or viton (R) gloves.
<b>Body</b>	When using large quantities or where heavy contamination is likely, wear coveralls.
<b>Respiratory</b>	Where an inhalation risk exists, wear a Type A-Class P1 (Organic gases/vapours and Particulate) respirator. Where the boiling point is < 65°C, use an AX filter type.



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## 9. PHYSICAL AND CHEMICAL PROPERTIES

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### 9.1 Information on basic physical and chemical properties

<b>Appearance</b>	CLEAR COLOURLESS LIQUID (AEROSOL DISPENSED)
<b>Odour</b>	MILD SOLVENT ODOUR
<b>Flammability</b>	NON FLAMMABLE
<b>Flash point</b>	NOT AVAILABLE
<b>Boiling point</b>	NOT AVAILABLE
<b>Melting point</b>	NOT AVAILABLE
<b>Evaporation rate</b>	NOT AVAILABLE
<b>pH</b>	NOT AVAILABLE
<b>Vapour density</b>	NOT AVAILABLE
<b>Specific gravity</b>	NOT AVAILABLE
<b>Solubility (water)</b>	INSOLUBLE
<b>Vapour pressure</b>	NOT AVAILABLE
<b>Upper explosion limit</b>	NOT AVAILABLE
<b>Lower explosion limit</b>	NOT AVAILABLE
<b>Partition coefficient</b>	NOT AVAILABLE
<b>Autoignition temperature</b>	NOT AVAILABLE
<b>Decomposition temperature</b>	NOT AVAILABLE
<b>Viscosity</b>	NOT AVAILABLE
<b>Explosive properties</b>	NOT AVAILABLE
<b>Oxidising properties</b>	NOT AVAILABLE
<b>Odour threshold</b>	NOT AVAILABLE

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## 10. STABILITY AND REACTIVITY

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### 10.1 Reactivity

Carefully review all information provided in sections 10.2 to 10.6.

### 10.2 Chemical stability

Stable under recommended conditions of storage.

### 10.3 Possibility of hazardous reactions

Hazardous polymerization is not expected to occur.

### 10.4 Conditions to avoid

Avoid heat, sparks, open flames and other ignition sources.

### 10.5 Incompatible materials

Incompatible with oxidising agents (e.g. hypochlorites), acids (e.g. nitric acid), alkalis (e.g. sodium hydroxide), metals, heat and ignition sources.

### 10.6 Hazardous decomposition products

May evolve toxic gases (chlorides, phosgene, carbon oxides, hydrocarbons) when heated to decomposition.

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## 11. TOXICOLOGICAL INFORMATION

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**PRODUCT NAME CRC BRAKLEEN NF**

**11.1 Information on toxicological effects**

**Acute toxicity** Based on available data, the classification criteria are not met. This product may have the potential to cause adverse health effects if intentionally misused (e.g. deliberately inhaling contents).

**Information available for the ingredients:**

Ingredient	Oral LD50	Dermal LD50	Inhalation LC50
TETRACHLOROETHYLENE (PERCHLOROETHYLENE)	3005 mg/kg (rat)	5000 mg/kg (rabbit)	28 mg/L/6hrs (rat)
DICHLOROMETHANE (METHYLENE CHLORIDE)	> 2000 mg/kg (rat) (OECD Test Guideline 401)	> 2000 mg/kg (rat) (OECD Test Guideline 402)	88 mg/L/30min; vapour (rat) (IUCLID)
CARBON DIOXIDE	--	--	470000 ppm/30M (rat)

**Skin** Contact may result in drying and defatting of the skin, rash and dermatitis.

**Eye** Contact may result in irritation, lacrimation, pain and redness.

**Sensitisation** Not classified as causing skin or respiratory sensitisation.

**Mutagenicity** Insufficient data available to classify as a mutagen.

**Carcinogenicity** Suspected of causing cancer. Tetrachloroethylene is classified as probably carcinogenic to humans (IARC Group 2A). Dichloromethane is classified as possibly carcinogenic to humans (IARC Group 2B).

**Reproductive** Insufficient data available to classify as a reproductive toxin.

**STOT - single exposure** Over exposure to dichloromethane may result in central nervous system (CNS) effects, breathing difficulties, anaesthesia, cardiac arrhythmias, pulmonary oedema, unconsciousness and possible respiratory failure. Dichloromethane is metabolised to carbon monoxide which reacts with haemoglobin in the blood to prevent oxygen uptake and release.

**STOT - repeated exposure** Repeated exposure to dichloromethane may result in nerve (including brain), liver and lung damage. Individuals with impaired cardiovascular function, or who are heavy drinkers or smokers should avoid exposure as dichloromethane reduces the blood's oxygen carrying capacity.

**Aspiration** Not expected to present an aspiration hazard.

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**12. ECOLOGICAL INFORMATION**

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**12.1 Toxicity**

Toxic to aquatic life with long lasting effects.

**12.2 Persistence and degradability**

Dichloromethane is readily biodegradable as shown in a closed bottle test. Dichloromethane is a very volatile substance and the calculated half-life in air of dichloromethane is 107 days, in water 10.9 days and in soil 14.2 days. Therefore dichloromethane is not Persistent (REACH).

**12.3 Bioaccumulative potential**

The highest observed BCF in fish was 40 L/kg, thus dichloromethane is not bioaccumulative (REACH).

**12.4 Mobility in soil**

If released to soil, dichloromethane is expected to have very high mobility based upon a measured Koc range of 8-48 (HSDB).

**12.5 Other adverse effects**

No information provided.

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**13. DISPOSAL CONSIDERATIONS**

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**13.1 Waste treatment methods**

**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/supplier for additional information (if required).

**Legislation** Dispose of in accordance with relevant local legislation.

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**14. TRANSPORT INFORMATION**

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



	LAND TRANSPORT (ADG)	SEA TRANSPORT (IMDG / IMO)	AIR TRANSPORT (IATA / ICAO)
14.1 UN Number	1950	1950	1950
14.2 Proper Shipping Name	AEROSOLS	AEROSOLS	AEROSOLS
14.3 Transport hazard class	2.2	2.2	2.2
14.4 Packing Group	None allocated.	None allocated.	None allocated.

**14.5 Environmental hazards**

Marine Pollutant

**14.6 Special precautions for user**

Hazchem code	2YE
GTEPG	2D1
EMS	F-D, S-U

**15. REGULATORY INFORMATION**

**15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture**

<b>Poison schedule</b>	Classified as a Schedule 6 (S6) Standard for the Uniform Scheduling of Medicines and Poisons (SUSMP).	
<b>Classifications</b>	Safework Australia criteria is based on the Globally Harmonised System (GHS) of Classification and Labelling of Chemicals.  The classifications and phrases listed below are based on the Approved Criteria for Classifying Hazardous Substances [NOHSC: 1008(2004)].	
<b>Hazard codes</b>	Carc. N	Carcinogen Dangerous for the environment
<b>Risk phrases</b>	R40 R51/53	Limited evidence of a carcinogenic effect. Toxic to aquatic organisms, may cause long term adverse effects in the aquatic environment.
<b>Safety phrases</b>	S23 S24/25 S36/37 S45 S53	Do not breathe gas/fumes/vapour/spray (where applicable). Avoid contact with skin and eyes. Wear suitable protective clothing and gloves. In case of accident or if you feel unwell seek medical advice immediately (show the label where possible). Avoid exposure - obtain special instructions before use.
<b>Inventory listings</b>	<b>AUSTRALIA: AICS (Australian Inventory of Chemical Substances)</b> All components are listed on AICS, or are exempt.	

**16. OTHER INFORMATION**

<b>Additional information</b>	<p>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 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.</p> <p>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.</p>
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RESPIRATORS: In general the use of respirators should be limited and engineering controls employed to avoid exposure. If respiratory equipment must be worn ensure correct respirator selection and training is undertaken. Remember that some respirators may be extremely uncomfortable when used for long periods. The use of air powered or air supplied respirators should be considered where prolonged or repeated use is necessary.

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.

**PERSONAL PROTECTIVE EQUIPMENT GUIDELINES:**

The recommendation for protective equipment contained within this report is provided as a guide only. Factors such as form of product, 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.

**HEALTH EFFECTS FROM EXPOSURE:**

It should be noted that the effects from exposure to this product will depend on several factors including: form of product; 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 report which would encompass all possible scenarios, it is anticipated that users will assess the risks and apply control methods where appropriate.

**Abbreviations**

ACGIH	American Conference of Governmental Industrial Hygienists
CAS #	Chemical Abstract Service number - used to uniquely identify chemical compounds
CNS	Central Nervous System
EC No.	EC No - European Community Number
EMS	Emergency Schedules (Emergency Procedures for Ships Carrying Dangerous Goods)
GHS	Globally Harmonized System
GTEPG	Group Text Emergency Procedure Guide
IARC	International Agency for Research on Cancer
LC50	Lethal Concentration, 50% / Median Lethal Concentration
LD50	Lethal Dose, 50% / Median Lethal Dose
mg/m <sup>3</sup>	Milligrams per Cubic Metre
OEL	Occupational Exposure Limit
pH	relates to hydrogen ion concentration using a scale of 0 (high acidic) to 14 (highly alkaline).
ppm	Parts Per Million
STEL	Short-Term Exposure Limit
STOT-RE	Specific target organ toxicity (repeated exposure)
STOT-SE	Specific target organ toxicity (single exposure)
SUSMP	Standard for the Uniform Scheduling of Medicines and Poisons
SWA	Safe Work Australia
TLV	Threshold Limit Value
TWA	Time Weighted Average

**Report status**

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

It is based on information concerning the product which has been provided to RMT by the manufacturer, importer or supplier 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, importer or supplier.

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.

**PRODUCT NAME CRC BRAKLEEN NF**

**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](mailto:info@rmt.com.au)  
Web: [www.rmt.com.au](http://www.rmt.com.au)

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