



MATERIAL SAFETY DATA SHEET

Product Name **FREEZE SPRAY**

1. IDENTIFICATION OF THE MATERIAL AND SUPPLIER

Supplier Name CRC INDUSTRIES (AUST) PTY LIMITED
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Web Site http://www.crcind.com.au/
Synonym(s) 2039 - PRODUCT CODE • CRC FREEZE SPRAY • CRC FREEZE SPRAY 75 (FORMERLY)
Use(s) FREEZE SPRAY • FREEZING APPLICATIONS
SDS Date 01 Apr 2010

2. HAZARDS IDENTIFICATION

NOT CLASSIFIED AS HAZARDOUS ACCORDING TO ASCC CRITERIA

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

UN No.	1950	DG Class	2.2	Subsidiary Risk(s)	None Allocated
Packing Group	None Allocated	Hazchem Code	2Y	EPG	2D1

3. COMPOSITION/ INFORMATION ON INGREDIENTS

Ingredient	Formula	CAS No.	Content
1,1,1,2-TETRAFLUOROETHANE (HFC 134A)	C2-H2-F4	811-97-2	>60%

4. FIRST AID MEASURES

Eye If in eyes, hold eyelids apart and flush the eye continuously with running water. Continue flushing until advised to stop by a Poisons Information Centre on 13 11 26 (Australia Wide) or a doctor, or for at least 15 minutes.

Inhalation If inhaled, remove from contaminated area. To protect rescuer, use an Air-line respirator where an inhalation risk exists. Apply artificial respiration if not breathing.

Skin Cold burns: Remove contaminated clothing and gently flush affected areas with warm water (30°C) for 15 minutes. Apply sterile dressing and treat as for a thermal burn. For large burns, immerse in warm water for 15 minutes. DO NOT apply any form of direct heat. Seek immediate medical attention.

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.

Advice to Doctor Treat symptomatically

5. FIRE FIGHTING MEASURES

Flammability Non flammable. May evolve toxic gases (carbon oxides, hydrogen fluoride, hydrocarbons) when heated strongly.

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 Prevent contamination of drains or waterways.

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6. ACCIDENTAL RELEASE MEASURES

Spillage If cans/containers are punctured (bulk), use personal protective equipment. Clear area of all unprotected personnel. Ventilate area where possible. Collect and allow to discharge outdoors. Contain spillage, then cover / absorb spill with non-combustible absorbant material (vermiculite, sand, or similar), collect and place in suitable containers for disposal.

7. STORAGE AND HANDLING

Storage Store in a cool, dry, well ventilated area, removed from oxidising agents, alkalis, active metals, metal powders, heat or ignition sources and foodstuffs. Aerosol containers may explode if exposed to excessive heat (> 50°C). Ensure containers are adequately labelled and protected from physical damage 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/m3	ppm	mg/m3
	1,1,1,2-Tetrafluoroethane	ASCC (AUS)	1000	4240	--	--

Biological Limits No biological limit allocated.

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

PPE Wear splash-proof goggles, leather gloves and safety glasses. 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) respirator. At high vapour levels, wear: an Air-line respirator.



9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance	COLOURLESS GAS (AEROSOL DISPENSED)	Solubility (Water)	NOT AVAILABLE
Odour	ETHEREAL-LIKE ODOUR	Specific Gravity	1.212
pH	NOT AVAILABLE	% Volatiles	100 %
Vapour Pressure	0.583 MPa @ 25°C	Flammability	NON FLAMMABLE
Vapour Density	> 1 (Air = 1)	Flash Point	NOT RELEVANT
Boiling Point	-26.4°C	Upper Explosion Limit	NOT RELEVANT
Melting Point	NOT AVAILABLE	Lower Explosion Limit	NOT RELEVANT
Evaporation Rate	NOT AVAILABLE		

10. STABILITY AND REACTIVITY

Chemical Stability Stable under recommended conditions of storage.

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

Material to Avoid Incompatible with oxidising agents (eg. hypochlorites), alkalis/ alkali earth metals.

Decomposition May evolve toxic gases if heated to decomposition.

Hazardous Reactions Polymerization is not expected to occur.

11. TOXICOLOGICAL INFORMATION

Health Hazard Summary	Asphyxiant - narcotic. This product may present a hazard with direct eye contact, prolonged skin contact or with vapour/gas inhalation at high levels. Over exposure may result in frost-bite or cold burns with direct contact. Individuals with impaired cardiovascular function, especially those with a history of cardiac arrhythmias, are advised to avoid exposure.
Eye	Non irritant. However, direct contact with evaporating liquid may result in severe cold burns with possible permanent damage.
Inhalation	Irritant - asphyxiant. Over exposure may result in respiratory irritation, coughing, nausea, dizziness and headache. High level exposure may result in dizziness, breathing difficulties and anaesthesia, cardiac arrhythmias, pulmonary oedema and unconsciousness at very high levels.
Skin	Low irritant. Prolonged or repeated contact may result in mild irritation. However, direct contact with the liquefied material or escaping compressed gas may cause frostbite injury.
Ingestion	Ingestion is considered unlikely due to product form.
Toxicity Data	1,1,1,2-TETRAFLUOROETHANE (HFC 134A) (811-97-2) LC50 (Inhalation): 1500 g/m ³ /4 hour (rat) TCLo (Inhalation): 5000 ppm/6 hour/2 years intermittently (rat)

12. ECOLOGICAL INFORMATION

Environment	Limited ecotoxicity data was available for this product at the time this report was prepared. Ensure appropriate measures are taken to prevent this product from entering the environment.
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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	2.2	Subsidiary Risk(s)	None Allocated
Packing Group	None Allocated	Hazchem Code	2Y	EPG	2D1

15. REGULATORY INFORMATION

Poison Schedule	A poison schedule number has not been allocated to this product 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 ASPHYXIANTS (1): When present in the atmospheres in high concentrations, asphyxiants reduce the oxygen concentration by displacement. Atmospheres deficient in oxygen do not provide adequate sensory warning of danger and most simple asphyxiants are odourless. Therefore it is not appropriate to recommend an exposure standard for each asphyxiant, but to maintain oxygen concentrations. However, some asphyxiants may be given an exposure standard due to the potential for narcotic effects at high concentrations or an explosion hazard.

ASPHYXIANTS (2): There is a significant hazard associated with workers entering poorly ventilated areas (eg. tanks) where oxygen may be deficient. An air supplied breathing apparatus may be required if adequate ventilation is not ensured. Refer to AS/NZS 2865 - Safe Working in a Confined Space.

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

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powered or air supplied respirators should be considered where prolonged or repeated use is necessary.

ABBREVIATIONS:

- ADB - Air-Dry Basis.
- BEI - Biological Exposure Indice(s)
- CAS# - Chemical Abstract Service number - used to uniquely identify chemical compounds.
- CNS - Central Nervous System.
- EINECS - European INventory of Existing Commercial chemical Substances.
- IARC - International Agency for Research on Cancer.
- M - moles per litre, a unit of concentration.
- mg/m³ - Milligrams per cubic metre.
- NOS - Not Otherwise Specified.
- NTP - National Toxicology Program.
- OSHA - Occupational Safety and Health Administration.
- 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.
- TWA/ES - Time Weighted Average or Exposure Standard.

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 Chem Alert 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 Chem Alert 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.

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SDS Date: 01 Apr 2010

End of Report