MATERIAL SAFETY DATA SHEET

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Section 1 – Identification of Chemical Product and Company

Sipcam Pacific Australia Pty. Ltd.
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Suite 11
23 – 31 Gheringhap Street
Geelong, Victoria, 3220

Substance:	Dimethoate
Trade Name:	**Rogor Insecticide**
Product Use:	Systemic insecticide to be used according to label instructions.
Creation Date:	March 1999
Revision Date:	**March 2004**

Section 2 – Hazards Identification

Statement of Hazardous Nature
Hazardous according to the criteria of WorkSafe Australia.

Risk Phrases: Risk Phrases are: R10, R20, R24/25. Flammable. Harmful by inhalation. Toxic in contact with skin and if swallowed.

Safety Phrases: Safety Phrases are: S16, S20, S36, S38. Keep away from sources of ignition - No smoking. When using, do not eat or drink. Wear suitable protective clothing. In case of insufficient ventilation, wear suitable respiratory equipment.

SUSDP Classification: S6

ADG Classification: 6.1 Toxic Substances.

UN No: 3017

Emergency Overview

Physical Description and Colour: Clear, amber liquid.

Odour: Characteristic acetone-peppermint-like odour.

Major Health Hazards: No specific data is available for the product for chronic exposure symptoms. The ingredients are not listed as carcinogenic in Worksafe's document "Exposure Standards for Atmospheric Contaminants in the Occupational Environment" (May 1995). Chronic exposure to organophosphates typically leads to loss of appetite, weakness, weight loss, and general feeling of sickness. Cholinesterase inhibitors are typically rapidly metabolised and excreted, and as a result, do not accumulate in the body. However, repeated minor exposure may have a cumulative poisoning effect because of the chemical nature of the poisoning.

Potential Health Effects

Acute overexposure to organophosphates degrades acetylcholinesterase in the tissues. This typically leads to headache, dizziness, weakness, shaking, nausea, stomach cramps, diarrhoea and sweating.

Inhalation: Data suggests that this product is harmful if inhaled. Minor or short term exposure may lead to short term health problems, although long term exposure may lead to permanent health problems.

LD_{50} Oral (Rat) = 387mg/kg LD_{50} Oral (Mouse) = 160mg/kg LD_{50} Oral (Guinea Pig) = 350mg/kg

LD_{50} Dermal (Rat) >2000mg/kg LC_{50} Inhalation (Rat) >1.6mg/L/4hr

Skin Contact: Data suggests that this product is likely to be absorbed through the skin and be toxic by skin absorption. Major skin exposure may lead to serious health problems and even death if not treated promptly.

Eye Contact: Data suggests that this product should present no significant problems to typical persons in normal use.

Ingestion: Data suggests that this product is toxic if swallowed. Ingestion of small quantities may cause harm and larger quantities may lead to death.

Carcinogen Status

NOHSC: No significant ingredient is classified as carcinogenic by NOHSC.

NTP: No significant ingredient is classified as carcinogenic by NTP.

IARC: No significant ingredient is classified as carcinogenic by IARC.

Section 3 – Composition / Information on Ingredients

Ingredients	CAS No	Conc, %	TWA, mg/m^3	STEL, mg/m^3
Dimethoate	60-51-5	40	not set	not set
Cyclohexanone	108-94-1	30-60	100	not set
Non hazardous hydrocarbon	secret	to 100	not set	not set

The TWA exposure value is the average airborne concentration of a particular substance when calculated over a normal 8 hour working day for a 5 day working week. The STEL (Short Term Exposure Limit) is an exposure value that should not be exceeded for more than 15 minutes and should not be repeated for more than 4 times per day. There should be at least 60 minutes between successive exposures at the STEL. The term "peak "is used when the TWA limit, because of the rapid action of the substance, should never be exceeded, even briefly.

Section 4 – First Aid Measures

General Information:
Atropine tablets 0.6mg should be available in the area where this product is used, or in a nearby unlocked medicine cabinet. Safety deluge showers should be provided where this product is being used.
If poisoning occurs, contact a Doctor or Poisons Information Centre. Phone 13 1126 from anywhere in Australia.

If swallowed, give one atropine tablet every 5 minutes until dryness of the mouth occurs - if poisoned by skin absorption or through lungs, remove any contaminated clothing, wash skin thoroughly and give atropine tablets as above. Get to a doctor or hospital quickly.

Inhalation: If anticholinesterase poisoning develops, see above for instructions and act on them immediately. If vapours or mists have been inhaled, and irritation or unusual symptoms have developed, remove to fresh air and observe until recovered. If irritation or symptoms persists more than about 30 minutes, seek medical advice.

Skin Contact: If anticholinesterase poisoning develops, see above for instructions and act on them immediately. If product gets on skin, immediately remove contaminated clothing and wash skin thoroughly with soap and running water for at least 15 minutes. Seek medical attention. If safety shower is available, use it promptly. Because of the toxicity of this product, speed may save a life.

Eye Contact: If product gets in eyes, wash eyes to remove material. No further measures should normally be required.

Ingestion: Data suggests that this product is toxic if swallowed. Ingestion of small quantities may cause harm and larger quantities may lead to death.

Section 5 – Fire Fighting Measures

Fire & Explosion Hazard: There is a moderate risk of an explosion from this product if it is involved in a fire. Firefighters should take care and appropriate precautions.

Extinguishing Media: carbon dioxide, dry chemical, foam, water fog. Foam is the preferred medium for large fires.

Special Fire Fighting procedures: If a significant quantity of this product is involved in a fire, call the fire brigade. Immediately evacuate the area of unnecessary personnel. When fighting fires involving significant quantities of this product, wear safety boots, non-flammable overalls, gloves, hat, goggles and self contained breathing apparatus. All skin areas should be covered. Ensure that no spillage enters drains or water courses.

Flashpoint: 45°C approx

Flammability limits: Upper Value: 9.4% : Lower Value: 1.3% (cyclohexanone)

Unusual Fire & Explosion Hazards: Fire decomposition products from this product may form toxic and corrosive mixtures in confined spaces. Vapours from this product are heavier than air and may accumulate in sumps, pits and other low-lying spaces, forming potentially explosive mixtures. They may also flash back considerable distances.

Stability: This product is unlikely to spontaneously decompose.

Section 6 – Accidental Release Measures

In the event of a major spill, prevent spillage from entering drains or water courses. Evacuate the spill area and deny entry to unnecessary and unprotected personnel. Immediately call the Fire Brigade. Wear full protective chemically resistant clothing including face mask, face shield, gauntlets and self contained breathing apparatus. See under Personal Protection regarding Australian Standards relating to personal protective equipment. Stop leak if safe to do so, and contain spill. Absorb onto sand, vermiculite or other suitable absorbent material. Sweep up and shovel or collect recoverable product into labelled containers for recycling or salvage. Can be slippery on floors, especially when wet. After spills, wash area preventing runoff from entering drains. If a significant quantity of material enters drains, advise emergency services.

Section 7 – Handling and Storage

This product is a S6 Poison. Observe all relevant regulations regarding sale, transport and storage of this class of product. Containers should be kept closed in order to minimise contamination. Keep from extreme heat and open flames, and make sure that the product does not come into contact with substances listed under "Materials to avoid".

Section 8 – Exposure Controls and Person Protection

Exposure Standards: A time weighted average (TWA) has been established for Cyclohexanone, present in significant quantities in this product. This value is 100mg/m^3. The corresponding STEL level is "not set". The STEL (Short Term Exposure Limit) is an exposure value that should not be exceeded for more than 15 minutes and should not be repeated for more than 4 times per day. There should be at least 60 minutes between successive exposures at the STEL. The exposure value at the TWA is the average airborne concentration of a particular substance when calculated over a normal 8 hour working day for a 5 day working week. See ingredients section of this data sheet. The ADI (Acceptable Daily Intake) for Dimethoate is set at 0.02mg/kg/day. The corresponding NOEL (No-observable-effect-level) is set at 0.2mg/kg/day. Values taken from Australian ADI List, December 2003.

Engineering Controls: In industrial situations, concentration values below the TWA value should be maintained. Values may be reduced by process modification, use of local exhaust ventilation, capturing substances at the source, or other methods. If you believe air borne concentrations of mists, dusts or vapours are high, you are advised to modify the process or environment to reduce the problem.

The following Australian Standards will provide general advice regarding safety clothing and equipment:

Respiratory equipment: AS/NZS 1715, **Protective Gloves**: AS 2161, **Industrial Clothing**: AS2919, **Industrial Eye Protection**: AS1336 and AS/NZS 1337, **Occupational Protective Footwear**: AS/NZS2210.

Respiratory Protection: If there is a significant chance of dusts, vapours or mists accumulating in the area where this product is being used, a mask or respirator should be used.

Protective Gloves: Impermeable protective gloves must be worn when you are using this product, since absorption through the skin is likely to lead to serious harm. All skin areas should be covered.

Eye Protection: Protective eyewear is not normally necessary when using this product. However, it is always prudent to use protective eyewear.

Clothing: Clean impermeable overalls or protective clothing should always be worn when handling this product, preferably with an apron. If contaminated, laundry should be advised of the nature of the contamination, or, preferably, clothing should be destroyed.

Safety Boots: Wearing safety boots in industrial situations is advisory.

Always wash hands before smoking, eating or using the toilet. Wash contaminated clothing and other protective equipment before storing or re-using.

Section 9 – Physical and Chemical Properties

Physical Description and Colour:	Clear, amber liquid.
Odour:	Characteristic acetone-peppermint-like odour.
Boiling point:	Approximately 160°C.
Vapour pressure:	100kPa.
Melting/softening point:	No specific data. Liquid at normal temperatures.
Volatile materials:	No specific data. Expected to be low at 100°C.
Flashpoint:	45°C approx.
Specific gravity:	1.1 approx.
Solubility in water:	Emulsifiable.
Corrosiveness:	Not corrosive.

Section 10 – Stability and Reactivity

Stability:	This product is unlikely to spontaneously decompose.
Polymerisation:	This product is unlikely to spontaneously polymerise.
Decomposition Products:	Carbon dioxide, and if combustion is incomplete, carbon monoxide and smoke. Nitrogen, and under some circumstances, oxides of nitrogen. Oxides of sulfur (sulfur dioxide is a respiratory hazard). Oxides of phosphorus. Water.
Materials to avoid:	Strong oxidising agents.

Section 11 - Disposal Considerations

Instructions concerning the disposal of this product and its containers are given on the product label. These should be carefully followed. Spillage and unused material may be found on the label. If there is any conflict between this MSDS and the label, instructions on the label prevail. Dispose of only in accord with all regulations. Advise laundry of nature of contamination when sending contaminated clothing to laundry.

Section 12 - Transport Information

This product is classed as UN3017, Dangerous Goods Class 6.1 Toxic Substances. Proper Shipping name is ORGANOPHOSPHORUS PESTICIDE, LIQUID, TOXIC, FLAMMABLE, flash point not less than 23°C. Class 6 Toxic Substances shall not be loaded in the same vehicle or packed in the same freight container with Classes 1 (Explosives), 3 (Flammable Liquids where the Flammable Liquid is nitromethane), 5.1 (Oxidising Agents where the Toxic Substances are Fire Risk Substances), 5.2 (Organic Peroxides where the Toxic Substances are Fire Risk Substances), 8 (Corrosive Substances where the Toxic Substances are cyanides and the Corrosives are acids), Foodstuffs and foodstuff empties. They may however be loaded in the same vehicle or packed in the same freight container with Classes, 2.1 (Flammable Gases), 2.2 (Non-Flammable, Non-Toxic Gases), 2.3 (Toxic Gases), 3 (Flammable liquids, except where the flammable liquid is nitromethane), 4.1 (Flammable Solids), 4.2 (Spontaneously Combustible Substances), 4.3 (Dangerous When Wet Substances), 5.1 (Oxidising Agents except where the Toxic Substances are Fire Risk Substances), 5.2 (Organic Peroxides except where the Toxic Substances are Fire Risk Substances), 7 (Radioactive Substances), 8 (Corrosive Substances except where the Toxic Substances are cyanides and the Corrosives are acids), 9 (Miscellaneous Dangerous Goods).

Section 13 - Regulatory Information

AICS: All of the significant ingredients in this formulation are to be found in the public AICS Database.

Section 14 - Other Information

This MSDS contains only safety-related information. For other data see product literature.

Acronyms:

ADG Code	Australian Code for the Transport of Dangerous Goods by Road and Rail
AICS	Australian Inventory of Chemical Substances
CAS number	Chemical Abstracts Service Registry Number
Hazchem Number	Emergency action code of numbers and letters that provide information to emergency services especially firefighters
IARC	International Agency for Research on Cancer
NOHSC	National Occupational Health and Safety Commission
NOS	Not otherwise specified
NTP	National Toxicology Program (USA)
R-Phrase	Risk Phrase
SUSDP	Standard for the Uniform Scheduling of Drugs & Poisons
UN Number	United Nations Number

CONTACT POINTS		**AUSTRALIA**
Police and Fire Brigade:	**Dial**	**000**
If ineffective:	**Dial**	**1100 (Exchange)**
For emergency response:	**Dial**	**1800 033 111**
National Poisons Information Centre:	**Dial 13 1126 (from anywhere in Australia)**	

Please read all labels carefully before using product.

This MSDS summarises our best knowledge of the health and safety hazard information of the product and how to safely handle and use the product in the workplace. Each user should read this MSDS and consider the information in the context of how the product will be handled and used in the workplace including in conjunction with other products. If clarification or further information is needed to ensure that an appropriate risk assessment can be made, the user should contact this company. The responsibility for products sold is subject to our standard terms and conditions, a copy of which is sent to our customers and is also available on request.

This MSDS is prepared in accord with the NOHSC document “National Code of Practice for the Preparation of Material Safety Data Sheets” 2nd Edition [NOHSC:2011(2003)]

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