

Amgrow Chemspray Rogor 100 Systemic Insecticide

Section 1 - Identification of Chemical Product and Company

Envirogreen Pty Ltd
PO Box 6390
Silverwater NSW 1811

Phone: (02) 9395 1200 (Business hours)
Fax: (02) 9395 1241

Trade Name: Amgrow Chemspray Rogor 100
Product Use: Systemic insecticide for garden use
Creation Date: December, 2002
Revision Date: January 2008

Section 2 - Hazards Identification

Statement of Hazardous Nature

This product is classified as hazardous according to the criteria of ASCC.

Not a Dangerous Good according to the Australian Dangerous Goods (ADG) Code.

Risk Phrases: R21/22 Harmful in contact with skin and if swallowed

Safety Phrases: S36/37 Wear suitable protective clothing and gloves

SUSDP Classification: S6.

ADG Classification: None allocated. Not a Dangerous Good under the ADG Code.

UN Number: None allocated

Emergency Overview

Physical Description & colour: Clear, almost colourless liquid

Odour: Garlic odour.

Major Health Hazards: Acute overexposure to organophosphates degrades acetylcholinesterase in the tissues. This typically leads to headache, dizziness, weakness, shaking, nausea, stomach cramps, diarrhoea and sweating. May be a cumulative poison; repeated exposures may reduce cholinesterase levels to potentially lethal levels.

Potential Health Effects

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.

Skin Contact:

Data suggests that this product may be absorbed through the skin and be harmful by skin absorption. Major skin exposure may lead to health problems.

Eye Contact:

This product may irritate eyes. However, it is unlikely to cause any more than mild transient discomfort. It is also unlikely to cause any significant lasting effects.

Ingestion:

Data suggests that this product is harmful if swallowed.

Carcinogen Status:

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

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 | 10 | not set | not set |
| Non hazardous liquid hydrocarbon | no data | to 100 | not set | not set |

MATERIAL SAFETY DATA SHEET

This is a commercial product whose exact ratio of components may vary slightly. Minor quantities of other non hazardous ingredients are also possible.

The ASCC 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 may be equalled (but should not be exceeded) for no longer than 15 minutes and should not be repeated 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:

You should call The Poisons Information Centre if you feel that you may have been poisoned, burned or irritated by this product. The number is 13 1126 from anywhere in Australia (0800 764 766 in New Zealand) and is available at all times. Have this MSDS with you when you call. 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.

Ingestion: 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 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. See information above about poisoning treatment.

Skin Contact: If product gets on skin, immediately remove contaminated clothing and wash skin thoroughly with soap and water to remove material. If you begin to feel unwell, seek medical attention. See information above about poisoning treatment.

Eye Contact: If product gets in eyes, wash material from them with running water. If they begin watering or reddening, take special care in washing thoroughly.

Advice to Doctor: This product contains a cholinesterase inhibitor. Atropine treatment may be required or treat with up to 10mg of IV diazepam. Curare therapy is contraindicated. Treat pulmonary pneumonitis secondary to pulmonary oedema. Do not give adrenergic amines, aminophylline, succinylcholine, phenothiazines or reserpine alkaloids or oils.

Section 5 - Fire Fighting Measures

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

Extinguishing Media: carbon dioxide, dry chemical, foam, and water fog

Fire Fighting: 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 respirator. All skin areas should be covered.

Flash point: 63°C approx

Upper Flammability Limit: No data

Lower Flammability Limit: No data

Auto ignition temperature: No data

Flammability Class: C1

Fire decomposition products: 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. Carbon dioxide, and if combustion is incomplete, carbon monoxide and smoke. Oxides of phosphorus, water.

MATERIAL SAFETY DATA SHEET

Section 6 - Accidental Release Measures

Accidental release: Minor spills do not normally need any special cleanup measures. In the event of a major spill, In the event of a major spill, prevent spillage from entering drains or watercourses. Evacuate the spill area and deny entry to unnecessary and unprotected personnel. Immediately call the Fire Brigade. Wear full protective chemically resistant clothing including facemask, face shield, gauntlets, and self-contained breathing apparatus. See above 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. After spills, wash area-preventing runoff from entering drains. If a significant quantity of material enters drains, advise emergency services. Full details regarding disposal of used containers, 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 7 - Handling and Storage

Handling: Keep exposure to this product to a minimum, and minimise the quantities kept in work areas. Check Section 8 of this MSDS for details of personal protective measures, and make sure that those measures are followed. The measures detailed below under "Storage" should be followed during handling in order to minimise risks to persons using the product in the workplace. Also, avoid contact or contamination of product with incompatible materials listed in Section 10.

Storage: No special storage and transport requirements. This product has no UN classification. 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" below.

Section 8 - Exposure Controls and Personal Protection

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**.

| ASCC Exposure limits | TWA (mg/m ³) | STEL (mg/m ³) | ADI (mg/Kg/day) | NOEL(mg/Kg/day) |
|----------------------|--------------------------|---------------------------|-----------------|-----------------|
| Dimethoate | 10 | not set | 0.02 | 0.2 |

ADI means Acceptable Daily Intake and NOEL means No-observable-effect-level. Values taken from Australian ADI List, Dec 2006.

The ASCC 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 may be equalled (but should not be exceeded) for no longer than 15 minutes and should not be repeated 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.

No special equipment is usually needed when occasionally handling small quantities. The following instructions are for bulk handling or where regular exposure in an occupational setting occurs without proper containment systems.

Ventilation: No special ventilation requirements are normally necessary for this product. However make sure that the work environment remains clean and that vapours and mists are minimised.

Eye Protection: Eye protection is not normally necessary when this product is being used. However, if in doubt, wear suitable protective glasses or goggles.

Skin Protection: Impermeable protective gloves should be worn when you are using this product, since absorption through the skin is harmful. Clean overalls or protective clothing should be worn, preferably with an apron. Consult AS2919 for advice on Industrial Clothing.

Protective Material Types: We suggest that protective clothing be made from the following materials: rubber, PVC.

Respirator: 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. For help in selecting suitable equipment, consult AS/NZS 1715.

MATERIAL SAFETY DATA SHEET

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 & colour: | Clear, almost colourless liquid. |
| Odour: | Garlic odour |
| Boiling Point: | Approximately 200°C |
| Melting Point: | 9°C |
| Flash Point: | 63°C |
| Flammability Limits: | No data |
| Volatiles: | No data |
| Vapour Pressure: | 2.37 kPa at 20°C (water vapour pressure). |
| Vapour Density: | No data. |
| Specific Gravity: | 1.01 |
| Water Solubility: | Emulsifiable. |
| pH: | No data. |
| Volatility: | No data. |
| Odour Threshold: | No data. |
| Evaporation Rate: | No data. |
| Coeff Oil/water distribution: | No data |
| Auto ignition temp: | No data |
| Corrosiveness: | Not corrosive |

Section 10 - Stability and Reactivity

Reactivity: This product is unlikely to react or decompose under normal storage conditions. However, if you have any doubts, contact the supplier for advice on shelf life properties.

Conditions to Avoid: None known.

Incompatibilities: Strong oxidising agents

Fire Decomposition: Carbon dioxide, and if combustion is incomplete, carbon monoxide and smoke. Oxides of phosphorus, water.

Polymerisation: This product will not undergo polymerisation reactions.

Section 11 - Toxicological Information

Acute toxicity / Chronic toxicity

LD₅₀ Oral (Rat) = 2000-3000mg/kg LD₅₀ Dermal (Rat) = 8000mg/kg

For Dimethoate

Oral LD50 (rat): 185-680 mg/kg. (1)

Oral LD50 (mice): 135-165 mg/kg. (1)

Dermal LD50 (rat): 100-443 mg/kg. (1)

Inhalation LC50 (rat): > 1.6 mg/L/4hr. (2)

Skin Non-irritant (rabbit). (1)

Eyes: Non-irritant. (1)

Section 12 - Ecological Information

Avoid contaminating waterways.

Dimethoate

Aquatic Toxicity

Toxic to aquatic organisms.

96hr LC50 (rainbow trout): 6.2 mg/L.

96hr LC50 (mosquito fish): 40-60 mg/L.

96hr LC50 (bluegill sunfish): 6 mg/

4hr EC50 (Daphnia magna): 4.7 mg/L.

Risk of bioaccumulation in an aquatic species is low.

MATERIAL SAFETY DATA SHEET

Terrestrial Toxicology

Oral LD50 (mallard duck): 40 mg/kg.

Oral LD50 (peasant): 15 mg/kg.

Oral LD50 (quail): 84 mg/kg.

Oral LD50 (chicken): 108 mg/kg.

Toxic to bees. Oral LD50 (bee): 0.1-0.2 ug/bee.

Contact LD50 (bee): 0.1-0.2 ug/bee.

Environmental Fate, Persistence & Degradation

Dimethoate is biodegradable. It undergoes rapid biodegradations in the environment and without problems in sewage treatment plants.

Section 13 - Disposal Considerations

Disposal: Disposal instructions appear on the product label and should be followed. Empty containers are usually discarded with household rubbish.

Section 14 - Transport Information

ADG Code: This product is not classified as a Dangerous Good. No special transport conditions are necessary unless required by other regulations.

Section 15 - Regulatory Information

AICS: All of the significant ingredients in this formulation are compliant with ASCC regulations.

Section 16 - 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 |
| ASCC | Office Of The Australian Safety And Compensation Council |
| CAS number | Chemical Abstracts Service Registry Number |
| IARC | International Agency for Research on Cancer |
| NTP | National Toxicology Program (USA) |
| R-Phrase | Risk Phrase |
| SUSDP | Standard for the Uniform Scheduling of Drugs & Poisons |
| UN Number | United Nations Number |

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 MUST REVIEW THIS MSDS IN THE CONTEXT OF HOW THE PRODUCT WILL BE HANDLED AND USED IN THE WORKPLACE.

IF CLARIFICATION OR FURTHER INFORMATION IS NEEDED TO ENSURE THAT AN APPROPRIATE RISK ASSESSMENT CAN BE MADE, THE USER SHOULD CONTACT THIS COMPANY SO WE CAN ATTEMPT TO OBTAIN ADDITIONAL INFORMATION FROM OUR SUPPLIERS. OUR 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.

Please read all labels carefully before using product.

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

Copyright © Kilford & Kilford Pty Ltd, Jan 2008

<http://www.kilford.com.au/> Phone (02)9251 4532

MATERIAL SAFETY DATA SHEET