



IVORYCHEM PTE LIMITED
15 Beach Road #02-09, Beach Centre
Singapore 189677
Tel: +65 – 6337 7765
Fax: +65 – 6337 7730
Email: contact@ivorychem.com
Web: www.ivorychem.com
Co. Registration No. 200405572W
GST Registration No. 200405572W

MATERIAL SAFETY DATA SHEET

ROUT 50 EC INSECTICIDE

Version: Global
Date Approved:
Revision No: 1

CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

PRODUCT NAME: ROUT® 50 EC INSECTICIDE
ACTIVE INGREDIENT: PIRIMIPHOS-METHYL
CHEMICAL FAMILY: NA
CHEMICAL NAME OF ACTIVE INGREDIENT(S): 0,2-diethylamino-6-methylpyrimidin-4-yl O,O-dimethyl phosphorothioate
MOLECULAR FORMULA: C₁₁H₂₀N₃O₃PS
SYNONYMS: Actellic®, Actellifog®, Blex®, PP511 (discontinued name), Silosan®, Sybol®, OMS 1424.

MANUFACTURER

IVORYCHEM PTE LTD
15 Beach Road, #02-09
Beach Centre
Singapore 189677
Tel: +65 63377765
Fax: +65 63377730

Emergency Telephone Numbers:

Emergency Phone contact@ivorychem.com (Please refer local label for Emergency Numbers in your region).

COMPOSITION / INFORMATION ON INGREDIENTS

| Chemical Name | CAS # | Wt.% | PEL/TLV | EC No. | EC Class |
|-------------------|------------|------|---------|--------|----------|
| Primiphos Methyl | 29232-93-7 | 50 | None | None | None |
| Other ingredients | - | 50 | None | None | None |

HAZARDS IDENTIFICATION

SIGNS AND SYMPTOMS OF EXPOSURE: Headache, dizziness, weakness, salivation, nausea, vomiting, muscular twitching, anxiety, sweating, contraction of pupils and impairment of vision. Exposure to the dust may cause discomfort due to particulate nature. May cause physical irritation to the eyes. May cause constriction of the pupil. Repeated or prolonged contact with skin may cause irritation. The component pirimiphos methyl can be absorbed through the skin.

Pirimiphos methyl is an organophosphate insecticide, which inhibits cholinesterase activity,

Company Registration No: 200405572W
Incorporated in the Republic of Singapore Under the Companies Act (Cap 50)



IVORYCHEM PTE LIMITED

15 Beach Road #02-09, Beach Centre
Singapore 189677
Tel: +65 – 6337 7765
Fax: +65 – 6337 7730
Email: contact@ivorychem.com
Web: www.ivorychem.com
Co. Registration No. 200405572W
GST Registration No. 200405572W

producing local and systemic effects by interfering in nerve pulse transmission. Onset of symptoms can be delayed for several hours.

FIRST AID MEASURES

Have the product container, label or Material Safety Data Sheet with you when calling a poison control center or doctor, or going for treatment.

INGESTION: Call a poison control center or doctor immediately for treatment advice. Have person sip a glass of water if able to swallow. Do not induce vomiting unless told to do so after calling a poison control center or doctor. Do not give anything by mouth to an unconscious person.

EYE CONTACT: If in eyes: Hold eye open and rinse slowly and gently with water for 15-20 minutes. Remove contact lenses, if present, after 5 minutes, then continue rinsing eye. Call a poison control center or doctor for treatment advice.

SKIN CONTACT: If on skin or clothing: Take off contaminated clothing. Rinse skin immediately with plenty of water for 15-20 minutes. Call a poison control center or doctor for treatment advice.

INHALATION: no specific intervention is indicated as the compound is not likely to be hazardous by inhalation. Consult a physician if necessary.

NOTE TO PHYSICIAN: Anti cholinesterase effects. Effects may be delayed.

Suggested treatment. Give 2 mg of atropine sulphate intramuscularly or in severe cases intravenously, repeated at 10-15 min intervals until dryness of the mouth occurs. When this response is achieved, it is advised to maintain a degree of for 24 hours. If stopped too early, pulmonary edema may develop.

Atropine should not be given to a cyanosed patient.

Specific antidote: 2-PAM (2-Pyridine aldoxime methiodide) should only be given when there is full atropinisation. PAM is administered by slow intravenous injection in 1g doses, repeated in 30 mins if necessary.

A person who has suffered organophosphate poisoning should be kept under medical supervision, preferably in hospital, for 24-48 hours until all likelihood of relapse has passed.

FIRE FIGHTING MEASURES

IN CASE OF FIRE

Use dry chemical or CO₂ extinguishing media for small fires, water spray or foam for large fires. Use water spray to keep fire-exposed containers cool. Approach fire from upwind to avoid hazardous vapors and toxic decomposition products.

Wear full protective clothing and self-contained breathing apparatus. Evacuate nonessential personnel from the area to prevent human exposure to fire, smoke, fumes or products of combustion. Prevent use of contaminated buildings, area, and equipment until decontaminated.

ACCIDENTAL RELEASE MEASURES

In Case of Spill or Leak

Control the spill at its source. Contain the spill to prevent from spreading or contaminating soil or from entering sewage and drainage systems or any body of water. Clean up spills immediately,



IVORYCHEM PTE LIMITED

15 Beach Road #02-09, Beach Centre
Singapore 189677
Tel: +65 – 6337 7765
Fax: +65 – 6337 7730
Email: contact@ivorychem.com
Web: www.ivorychem.com
Co. Registration No. 200405572W
GST Registration No. 200405572W

observing precautions outlined in Section 8. Cover entire spill with absorbing material and place into compatible disposal container. Scrub area with hard water detergent (e.g. commercial products such as Tide, Joy, Spic and Span). Pick up wash liquid with additional absorbent and place into compatible disposal container. Once all material is cleaned up and placed in a disposal container, seal container and arrange for disposition.

ENVIRONMENTAL AND REGULATORY REPORTING: Prevent material from entering public sewer system or any waterways. Do not flush to drain. Large spills to soil or similar surfaces may necessitate removal of top soil. The affected area should be removed and placed in an appropriate container for disposal. Spills may be reportable to federal, state and/or local agencies.

HANDLING AND STORAGE

Store the material in a well-ventilated, secure area out of reach of children and domestic animals. Keep at temperatures below 77°F (25°C). This product should not be heated above 35°C (93°F). Do not store food, beverages or tobacco products in the storage area. Prevent eating, drinking, tobacco use, and cosmetic application in areas where there is a potential for exposure to the material. Wash thoroughly with soap and water after handling.

EXPOSURE CONTROLS / PERSONAL PROTECTION

No exposure standards have been set for the components of this product. However, it is recommended a time-weighted average of 3mg/m³. Absorption through the skin may be a significant source of exposure. The exposure standard is invalidated if such contact occurs. All atmospheric contamination should be kept to as low as is workable.

INGESTION: Prevent eating, drinking, tobacco usage and cosmetic application in areas where there is a potential for exposure to the material. Wash thoroughly with soap and water after handling.

EYE CONTACT: Where eye contact is likely, use chemical splash goggles. Facilities storing or utilizing this material should be equipped with an eyewash facility and a safety shower.

SKIN CONTACT: Where contact is likely, wear chemical-resistant (such as nitrile or butyl) gloves, coveralls, socks and chemical-resistant footwear. For overhead exposure, wear chemical-resistant headgear.

INHALATION: When respirators are required, select NIOSH/MSHA approved equipment based on actual or potential airborne concentrations and in accordance with the appropriate regulatory standards and/or industrial recommendations.

In case of emergency spills, use a NIOSH approved respirator with any N, R, P or HE filter.

PHYSICAL AND CHEMICAL PROPERTIES

APPEARANCE: Amber liquid

ODOR: Hydro carbon odor

FLASH POINT: 49°C

BOILING POINT: NA

SPECIFIC GRAVITY/DENSITY: 1.03 g/ml at 20°C



IVORYCHEM PTE LIMITED

15 Beach Road #02-09, Beach Centre
Singapore 189677
Tel: +65 – 6337 7765
Fax: +65 – 6337 7730
Email: contact@ivorychem.com
Web: www.ivorychem.com
Co. Registration No. 200405572W
GST Registration No. 200405572W

VAPOR PRESSURE: NA
VISCOSITY: NA
pH: NA
SOLUBILITY IN H2O: NA

STABILITY AND REACTIVITY

STABILITY: Stable
CONDITIONS TO AVOID: None
HAZARDOUS DECOMPOSITION PRODUCTS: None
HAZARDOUS POLYMERIZATION: Will not occur

Reacts with oxidizing agents. Hydrolysed by strong acids and alkalis. Slightly corrosive to tin plate and mild steel.

TOXICOLOGICAL INFORMATION

| | | |
|---------------------------------------|---------------------------|-----------|
| LC ₅₀ , static tests | : Carp (24-hour) | 1.6 mg/l |
| | Carp (48-hour) | 1.4 mg/l |
| | Rainbow trout (48-hour) | 0.25 mg/l |
| LC ₅₀ , flow through tests | : Rainbow trout (24-hour) | 0.78 mg/l |
| | Rainbow trout (48-hour) | 0.53 mg/l |
| | Fathead minnow (24-hour) | 5.60 mg/l |
| | Fathead minnow (48-hour) | 4.10 mg/l |

The threat to fish is greatly reduced by the strong tendency of pirimiphos-methyl to decompose in aqueous solutions and, to undergo photo-oxidation.

| | | |
|------------------------|-----------------------|---------------|
| Oral LD ₅₀ | : Chickens | 79-80 mg/kg |
| | Japanese quail | 140 mg/kg |
| | Green finches | 200-400 mg/kg |
| I.P.: LD ₅₀ | : Japanese quail | 140 mg/kg |
| Diet: LC ₅₀ | : Mallard ducklings | 630 mg/kg |
| | Bobwhite quail chicks | 207 mg/kg |

In two diet studies, chickens were fed pirimiphos-methyl in doses ranging from 4 to 40 ppm, there was no lasting adverse effect on hens, chicks; or, egg production, quality, or hatchability.

The relatively high toxicity of pirimiphos-methyl to birds appears to be related to a deficiency of esterases that hydrolyze pirimiphos-methyloxon. In 14 species of birds representing six avian orders the rate of hydrolysis of the oxon by *in vitro* plasma A-esterase ranged from a non-

**IVORYCHEM PTE LIMITED**

15 Beach Road #02-09, Beach Centre
Singapore 189677
Tel: +65 – 6337 7765
Fax: +65 – 6337 7730
Email: contact@ivorychem.com
Web: www.ivorychem.com
Co. Registration No. 200405572W
GST Registration No. 200405572W

detectable-level to 71 (nmoles/min.)/ml plasma, at best it was less than 10% of the lowest recorded mammalian rate.

DISPOSAL CONSIDERATIONS

PESTICIDE DISPOSAL: Open dumping is prohibited. Wastes resulting from the use of this product are acutely toxic. Improper disposal of unused pesticide, spray mixture, or rinsate is a violation of federal law. Pesticide, spray mixture, or rinsate that cannot be used according to label instructions must be disposed of according to Federal, State, or local procedures. For guidance in proper disposal methods, contact your State Pesticide or Environmental Control Agency or the Hazardous Waste representative at the nearest EPA Regional Office.

CONTAINER DISPOSAL: Triple rinse (or equivalent) and offer for recycling or reconditioning or puncture and dispose of in a sanitary landfill, or by incineration, or by open burning, if allowed by state and local authorities. If burned, keep out of smoke. For minor spills, leaks, etc., follow all precautions indicated on this label and clean up immediately. Take special care to avoid contamination of equipment and facilities during cleanup procedure and disposal of wastes.

TRANSPORT INFORMATION

TDG CLASSIFICATION:

TRANSPORTATION STATUS: Not regulated

SARA TITLE III: This product does not contain any Section 313 Reportable Ingredients.

REGULATORY INFORMATION

NA

OTHER INFORMATION

Section(s) Revised : New Format