1. IDENTIFICATION OF COMPANY & PRODUCT

Product Name : Diafenthiuron 50% WP
Chemical Name : 1-tert-butyl-3-(2, 6-diisopropyl-4-phenoxyphenyl) thiourea
Brand Name : YUDDHAM
Users : Insecticide for control of two-spotted Mite and Cotton Aphids and suppresses Silverleaf Whitefly in cotton
Molecular Formula : C7H16ClN3O2S2
Manufacturer : CROP LIFE SCIENCE LTD.
Address : Plot No. 5165, 5166, 5151, G.I.D.C., Ankleshwar-393002
Gujarat, India
Tele Fax Number : 91 2646 238479

2. COMPOSITION / INFORMATION ON INGREDIENTS

<table>
<thead>
<tr>
<th>Chemical Name</th>
<th>Cas #</th>
<th>Percent Or Content(W/W)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Diafenthiuron</td>
<td>80060-09-9</td>
<td>50</td>
</tr>
<tr>
<td>Glycerin</td>
<td>56-81-5</td>
<td>0 – 5</td>
</tr>
<tr>
<td>Propylene glycol</td>
<td>57-55-6</td>
<td>0 – 5</td>
</tr>
<tr>
<td>Other ingredients determined not to be hazardous</td>
<td>-</td>
<td>to 100</td>
</tr>
</tbody>
</table>

3. HEALTH HAZARDS IDENTIFICATION

Hazard basification: Classified as a hazardous chemical according to the Australian criteria for the classification of chemicals
Risk Phrases: R22 Harmful if swallowed
Safety Phrases: –

4. FIRST AID MEASURES

Description of Necessary First Aid Measures: In case of poisoning by any exposure route contact a doctor or Poisons Information Centre on 131 126. Have the product label or SDS with you when calling or going for treatment.
Ingestion: If swallowed, seek medical advice immediately and show this container or label. Do NOT induce vomiting.

Eye contact: Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. Remove contact lenses. Immediate medical attention is required.

Skin contact: Take off all contaminated clothing immediately. Wash off immediately with plenty of water. If skin irritation persists, call a physician. Wash contaminated clothing before re-use.

Inhalation: Remove to fresh air. If breathing is irregular or stopped, administer artificial respiration. Keep patient warm and at rest. Call a physician or Poison Information Centre immediately.

Poisoning Symptoms: Poisoning symptoms in laboratory animals were non-specific

Medical Advice: Treat symptomatically.

5. FIRE FIGHTING MEASURES

Suitable Extinguishing Media: Extinguishing media - small fires Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide. Do not use a solid water stream as it may scatter and spread fire. Extinguishing media - large fires Use alcohol-resistant foam or water spray. Do not use a solid water stream as it may scatter and spread fire.

Hazards from Combustion Products: As the product contains combustible organic components, fire will produce dense black smoke containing hazardous products of combustion (see Section 10). Combustion or thermal decomposition will evolve toxic and irritant vapors’. Exposure to decomposition products may be a hazard to health.

Special Protective Precautions and Equipment for Fire Fighters: In the event of fire, wear self-contained breathing apparatus.

6. ACCIDENTAL RELEASE MEASURES

Emergency Procedures: In case of spillage it is important to take all steps necessary to • Avoid eye and skin contact • Avoid contamination of waterways

Methods and Materials for Containment and Clean Up: Procedure for spill

(1) Keep all bystanders away
(2) Wear full length clothing and PVC gloves
(3) Reposition any leaking containers so as to minimize further leakage
(4) Dam and absorb spill with an absorbent material (e.g. sand or soil)
(5) Shovel the absorbed spill into drums
(6) Disposal of the absorbed material will depend upon the extent of the spill
• For quantities up to 50 L of product bury in a secure landfill site
• For quantities greater than 50 L seek advice from the manufacturer (use emergency contact number below) before attempting disposal. Contain in a secure location until disposal method is established
(7) Decontaminate spill area with detergent and water and rinse with the smallest volume of water practicable

7. HANDLING AND STORAGE

Precautions for Safe Handling: Will irritate the eyes and skin. Avoid contact with eyes and skin. DO NOT inhale spray mist. When opening the container, preparing the spray and using the prepared spray wear:
• Cotton overalls buttoned to the neck and wrist
• A washable hat
• Elbow-length PVC gloves
Wash hands after use. After each day’s use, wash gloves and contaminated clothing.

Conditions for Safe Storage: Store in the closed, original container in a cool, well-ventilated area. DO NOT store for prolonged periods in direct sunlight.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

ALWAYS READ AND FOLLOW THE LABEL INSTRUCTIONS AND WARNINGS

<table>
<thead>
<tr>
<th>Component</th>
<th>Exposure limit</th>
<th>Value type</th>
</tr>
</thead>
<tbody>
<tr>
<td>Propylene glycol</td>
<td>10 mg/m3</td>
<td>8h TWA</td>
</tr>
<tr>
<td>particulates only</td>
<td>474 mg/m3</td>
<td>8h TWA</td>
</tr>
<tr>
<td>vapour and particulates</td>
<td>150 ppm</td>
<td>8h TWA</td>
</tr>
</tbody>
</table>

Syngenta Exposure Standards: Diafenthiuron (skin) 0.2mg/m3 8h TWA

Biological Limit Values: No biological limits allocated

Engineering Controls: No special requirements. Product is used outdoors.

Personal Protective

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9. PHYSICAL AND CHEMICAL PROPERTIES

- **Appearance**: Light grey powder
- **Odour**: Not specific
- **pH**: 6 - 10 at 1 % w/v
- **Vapor Pressure**: Not available
- **Vapor Density**: Not available
- **Surface tension**: 42.3 mN/m at 20°C
- **Freezing/Melting Point**: Not available
- **Density**: 1.03 - 1.07 g/cm³ at 20°C
- **Flash Point**: Not highly flammable

10. STABILITY AND REACTIVITY

- **Chemical Stability**: Stable under normal conditions.
- **Conditions to Avoid**: None known.
- **Incompatible Materials**: No known incompatibilities
- **Hazardous Decomposition Products**: Combustion or thermal decomposition will evolve toxic and irritant vapors.
- **Hazardous Reactions**: None known. Hazardous polymerization does not occur.

11. TOXICOLOGICAL INFORMATION

Health Effects from Likely Routes of Exposure:

**Acute:**

- **Oral toxicity**: HARMFUL Tests on rats indicate this product is harmful following single doses of a similar formulation. (LD50 = 1,950 mg/kg)

- **Dermal toxicity**: LOW TOXICITY Tests on rats indicate this product has a low toxicity following skin contact with a similar formulation. (LD50 = mg/kg)

- **Inhalation**: LOW TOXICITY Generation of a reparable aerosol was not possible in laboratory tests. Therefore inhalation is not a likely route of exposure to this product. The product can be considered to have low toxicity by inhalation.
Skin irritation : NON IRRITANT

Eye irritation : NON IRRITANT

Sensitization : NOT A SENSITISER

Chronic : Diafenthiuron technical has been extensively tested on laboratory mammals and in test-tube systems. No evidence was obtained of mutagenic, teratogenic neurotoxic or reproductive effects. In animal studies (rat, mouse, dog), prolonged exposure to Diafenthiuron has been shown to produce lung damage. In the event of fire, wear self-contained breathing apparatus. Ice, chronic oral administration has produced lung tumors at high dose levels. No adverse effects in humans are expected at levels below the occupational exposure limit and when the product is handled and used according to the label.

12. ECOLOGICAL INFORMATION

Ecotoxicity:

Toxicity to fish : Very highly toxic to fish *Lepomis macrochirus* (bluegill sunfish): LC50 = 0.46 μg/L, 96 h (based on test results obtained with similar product).

Toxicity to daphnia and other aquatic invertebrates: Very highly toxic to aquatic invertebrates *Daphnia magna* (Water flea): EC50 = 0.62 μg/L, 48 h (based on test results obtained with active ingredient).

Persistence and Degradability : Diafenthiuron is not persistent in soil or water.

Mobility : Diafenthiuron is immobile in soil.

Bio accumulative Potential : Diafenthiuron bio accumulates.

13. DISPOSAL CONSIDERATIONS

Disposal Methods and Containers: Triple or preferably pressure rinse containers before disposal. Add rinsing’s to the spray tank. DO NOT dispose of undiluted chemicals on site. If recycling, replace cap and return clean containers to recycler or designated collection point. If not recycling, break, crush, or puncture and bury empty containers in a local authority landfill. If no landfill is available, bury the containers below 500 mm in a disposal pit specifically marked and set up for this purpose clear of waterways, desirable vegetation and tree roots. Empty containers and product should not be burnt.

Special Precautions for Landfill or Incineration: Not applicable
**14. TRANSPORT INFORMATION**

<table>
<thead>
<tr>
<th>LAND TRANSPORT</th>
<th>ADG</th>
<th>Not a dangerous good in Australia</th>
</tr>
</thead>
<tbody>
<tr>
<td>UN Number:</td>
<td>None allocated</td>
<td></td>
</tr>
<tr>
<td>UN Proper Shipping Name:</td>
<td>None allocated</td>
<td></td>
</tr>
<tr>
<td>Class:</td>
<td>None allocated</td>
<td></td>
</tr>
<tr>
<td>Packing Group:</td>
<td>None allocated</td>
<td></td>
</tr>
<tr>
<td>Special Precautions for User:</td>
<td>None allocated</td>
<td></td>
</tr>
<tr>
<td>Hazchem Code:</td>
<td>None allocated</td>
<td></td>
</tr>
</tbody>
</table>

**SEA TRANSPORT IMDG**

| UN Number:     | 3082 |
| UN Proper Shipping Name: | Environmentally Hazardous Substance, Liquid, N.O.S. (Diafenthiuron) |
| Class:         | 9    |
| Subsidiary Risk: | None allocated |
| Packing Group: | III  |
| Marine Pollutant: | Marine pollutant |

**AIR TRANSPORT IATA - DGR**

| UN Number:     | 3082 |
| UN Proper Shipping Name: | Environmentally Hazardous Substance, Liquid, N.O.S. Diafenthiuron) |
| Class:         | 9    |
| Subsidiary Risk: | None allocated |
| Packing Group: | III  |

**15. REGULATORY INFORMATION**

APVMA Product Number: 45252  
Poisons Schedule (SUSDP): 5
16. OTHER INFORMATION

The information provided in this SDS is sourced from Syngenta internal studies which have been conducted according to Regulatory requirements including OECD and CIPAC Guidelines and EC Directives. A comprehensive package of toxicological and environmental data for the active ingredients of this product has been submitted to the government health and environment authorities and has been evaluated by expert toxicologists and environmental scientists. This Material Safety Data Sheet summarizes 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 SDS 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.