



## MATERIAL SAFETY DATA SHEET

PRODUCT : Bifenazate 24% SC

PRODUCT DESIGNATION : Insecticide

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### Section 1. Product & Company Identification

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Common Name : Bifenazate

Grade : Formulation

Active Ingredient : Bifenazate

Chemical Name of Active :

Ingredient (IUPAC) isopropyl 3-(4-methoxybiphenyl-3-yl)carbazate

Chemical Family of A. I. :

Insecticide, Acaricide

Molecular Formula of A. I. :  $C_{17}H_{20}N_2O_3$

Molecular Mass of A. I. : 300.35 g/mol

Manufacturer & Supplier : **M/s PERFECT SOLUTIONS**

**Office Add:** B-371, Paschim Vihar, New Delhi -  
110063 (India)

**Factory Add:** 15/1, 15/2, 15/3 Industrial Estate,  
Vidisha - 464001 (M.P)

Telephone Number : +91 8375844625

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### Section 2. Composition / Information on Ingredients

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Components	Composition
Bifenazate a. i.	24 % w/w min.
Other Ingredients	Q.S % w/w max.
Total	100.00% w/w

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### Section 3. Hazards Identification

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**Ingestion** Harmful if swallowed

**Inhalation** Avoid inhalation of dust

**Eye Irritation** Mild Irritant

**Skin Irritation** May be harmful if absorbed through skin



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## Section 4. First Aid Measures

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**Eye contact:** Immediately flush with plenty of water or eyewash solution, occasionally opening eyelids, until no evidence of chemical remains. Remove contact lenses after a few minutes and flush again. Get medical attention if irritation develops.

**Skin contact:** Remove contaminated clothing and shoes. Wash with plenty of water and soap. Get medical attention if irritation develops.

**Ingestion:** Immediately dilute by drinking milk. If not available drink water. Do not induce vomiting. If vomiting occurs, drink fluids again. Call a doctor or get medical attention.

**Inhalation:** If experiencing any discomfort, immediately remove to fresh air and obtain medical advice if discomfort does not disappear.

**Note to Physician:** There is no specific antidote against this substance. Treatment is symptomatic and supportive.

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## Section 5. Fire Fighting Measures

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**Flammability:** Not flammable.

**Suitable extinguishing media:** Foam, dry chemical, carbon dioxide.

**Special firefighting procedures:** Keep out of smoke, cool exposed containers with water spray. Fight fire from upwind position. Use self-contained breathing equipment. Contain run-off by diking to prevent entry into sewers or waterways. Equipment or materials involved in pesticide fires become contaminated.

**Hazardous decomposition products:** Thermal decomposition or combustion may produce gases such as hydrogen chloride, hydrogen cyanide, and oxides of carbon and nitrogen.

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## Section 6. Accidental Release Measures

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**Spill or Leak Procedures** Isolate area and keep unauthorized people away. Do not walk through spilled material. Avoid breathing Vapors and skin contact. Wear proper protective equipment. Dislike contaminated area with absorbent granules, soil, sand, etc. If large spill, material should be recovered. Small spills can be absorbed with Absorbent granules, spill control pads, or any absorbent material. Carefully sweep up absorbed spilled material. Place in covered container for reuse or disposal. Scrub contaminated area with soap and Water. Use dry absorbent material such as clay granules to absorb and collect wash solution for proper



disposal. Contaminated soil may have to be removed and disposed. Do not allow material to enter streams, Sewers, or other waterways or contact vegetation.

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## Section 7. Handling & Storage

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**Storage temperature** (min/mix) None/30 day average not to exceed 100 F.

**Shelf life** Time temperature-dependent, contact CWFPL for specific information.

**Special sensitivity** Not established

**Handling /storage** precautions Store in a cool dry are designated specifically for pesticides. Do not store near any material Intended for use or consumption by humans or animals.

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## Section 8. Exposure Control, Personal Protection

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**Eye protection** all pesticide handlers must wear protective eyewear when working in a non-ventilated space or when applying termiticide by rodding or sub slab injection.

**Skin protection** Long-sleeved shirt, long pants, shoes plus socks. Chemical resistant footwear and overalls. Chemical-resistant gloves such as barrier laminate, butyl rubber, nitrile, neoprene rubber, polyvinyl chloride (PVC), or Viton.

**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. **Breathing protection** a respirator is not normally required when handling this substance. Use effective engineering controls to comply with occupational exposure limits.

**Other protective clothing or equipment** Discard clothing and other absorbent materials that have been drenched or heavily contaminated with this product's concentrate. Do not reuse them. Follow manufacturer's instructions for cleaning and maintaining PPE. If no such instructions for washables, use detergent and hot water. Keep and wash PPE separately from other laundry.

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## Section 9. Physical and Chemical Properties

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Appearance / state	: Liquid
Colour	: White to off white
Odour	: Slight sweet
Melting point	: NA
Vapour pressure	: NA



pH	:	5-9
Relative Density	:	1.050 – 1.070 °C
Flash Point	:	>104° C

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## Section 10. Stability & Reactivity

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**Stability** YES

**In compatibilities** With Oxidizing agents.

**Conditions to avoid** Avoid excessive heat & flame.

**Materials to avoid** Avoid contact with strong oxidizing agents.

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## Section 11. Toxicological Information

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**Acute Oral Toxicity** LD50 (Rat) > 5000 mg/kg

**Acute Dermal Toxicity** LD50 (Rat) > 2,000 mg/kg

**Acute Inhalation** LC50 (Rat) > 1.94 mg/l, exposure time 4 hr

**Eye Irritation** – Non- -irritant

**Skin Irritant** Non- -irritant

**Skin sensitization** Guinea pig: Non-sensitizer

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## Section 12. Ecological Information

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**Product: Toxicity to fish** : LC50 (Oncorhynchus mykiss (rainbow trout)): 1.4 mg/l Exposure time: 96 h

**Toxicity to daphnia and other aquatic invertebrates** : EC50 (Daphnia magna (Water flea)): 1.4 mg/l Exposure time: 48 h

**Toxicity to algae** : EC50 (Pseudokirchneriella subcapitata (green algae)): 1.3 mg/l Exposure time: 72 h

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## Section 13. Disposal Consideration

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**Waste Disposal Method** Pesticide wastes may be acutely hazardous. Improper disposal is a violation of federal law. Pesticide, mixtures, or equipment rinse water that cannot be chemically reprocessed must be disposed of according to applicable federal, state or local regulations. Contact your State Pesticide or Environmental Control Agency or the Hazardous Waste representative at the nearest EPA Regional office for guidance.



**Container disposal method** Dispose of product containers, waste containers, and residues according to label instructions and local, state, and federal health and environmental regulations.

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## Section 14. Transport Information

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The data provided in this section is for information only. Please apply the appropriate regulations to properly classify your shipment for transportation.

Toxic substances under the applicable, ICAO/IATA, IMO, ADG.

### IMDG Classification

Shipping name : ENVIRONMENTALLY HAZARDOUS SUBSTANCE,  
LIQUID,N.O.S

Class : 9

Packing group : III

UN number : 3082

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## Section 15. Regulatory Information

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**EU- Classification Hazard Symbol Xn** Harmful

**Risk Phrases (R-Phrases)** **R22** Harmful if swallowed  
**R52/53**Harmful to aquatic organisms, may cause long-term adverse effects in the aquatic environment

**Safety Advice (S- Phrases)** **S61** Avoid release to the environment.  
Refer to special instructions/safety data sheet

**International WHO Toxicity Classification II** Highly Toxic/hazardous

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## Section 16. Other Information

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All information and instructions provided in this Material Safety Data Sheet (MSDS) are based on the current state of scientific and technical knowledge at the date indicated on the present MSDS and are resented in good faith and believed to be correct. This information applies to the product as such. In case of new formulations or mixes, it is necessary to ascertain that a new danger will not appear. It is the responsibility of persons on receipt of this MSDS to ensure that the information contained herein is properly read and understood by all people who may use, handle, dispose or in any way come in contact with the product. If



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