



MATERIAL SAFETY DATA SHEET

PRODUCT : Indoxacarb 15.8%EC

PRODUCT DESIGNATION : Insecticide

Section 1. Product & Company Identification

Common Name : Indoxacarb 15.8 %EC

Grade : Formulation

Active Ingredient : Indoxacarb

Chemical Name of Active Ingredient (IUPAC) : methyl (4*aS*)-7-chloro-2-[methoxycarbonyl]-[4-(trifluoromethoxy)phenyl]carbamoyl]-3,5-dihydroindeno[1,2-*e*][1,3,4]oxadiazine-4*a*-carboxylate

Chemical Family of A. I. : oxadiazine

Molecular Formula of A. I. : C₃H₄N₂O

Molecular Mass of A. I. : 527.8 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

Section 2. Composition / Information on Ingredients

Name of the Components	Concentration% w/w
Indoxacarb a. i.	15.80% w/w min.
other components	84.00% w/w
Total	100.00% w/w

Section 3. Hazards Identification

Emergency Overview

Caution! Harmful if swallowed. Causes moderate eye irritation. Harmful if absorbed through skin. Avoid contact with skin, eyes or clothing. Wash thoroughly with soap and water after handling. Harmful if inhaled. Avoid breathing (dust, vapour or spray mist). Remove



contaminated clothing and wash clothing before reuse. Prolonged or frequently repeated skin contact may cause allergic reactions in some individuals.

Section 4. First Aid Measures

Emergency and First Aid Procedure –

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

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

If Inhaled Move person to fresh air. If person is not breathing, call an ambulance, then give artificial respiration, preferably by mouth-to-mouth, if possible. Call a poison control center or doctor for treatment advice.

IF SWALLOWED:

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 by the poison control center or doctor. Do not give anything by mouth to an unconscious person.

Section 5. Fire Fighting Measures

Hazardous product of Combustion.

Extinguishing Media: Water, Water Spray, Foam, Dry Chemical, CO₂.

Special Fire fighting procedures: Keep personnel removed and upwind of fire. Wear self-contained breathing apparatus. Wear full protective equipment. Runoff from fire control may be a pollution hazard.

If area is exposed to fire and conditions permit, let fire burn itself out. Burning chemicals may produce by-products more toxic than the original material. If product is on fire, wear self-contained breathing apparatus and full protective equipment. Use water spray. Control runoff.

Unusual fire and Explosion Hazards: Not explosive by impact, Thermally stable.



Section 6. Accidental Release Measures

Safeguards(Personnel)

NOTE: Review FIRE FIGHTING MEASURES and HANDLING (PERSONNEL) sections before proceeding with clean-up. Use appropriate PERSONAL PROTECTIVE EQUIPMENT during clean-up.

Evacuate personnel, thoroughly ventilate area, and use self-contained breathing apparatus.

Emergency Response - Chemical resistant coveralls, waterproof gloves, waterproof boots and face/eye protection. If dusting occurs, use NIOSH approved respirator protection.

Initial Containment Follow applicable Federal, State/Provincial and Local laws/ regulations. Prevent material from entering sewers, waterways, or low areas. Spill Clean-up Soak up with sawdust,sand, oil dry or other absorbent material. Dispose of in an approved container.

Section 7. Handling & Storage

Precautions in Handling:Wash hands before eating, drinking, chewing gum, using tobacco or using the toilet. Remove clothing immediately if pesticide gets inside. Then wash thoroughly and put on clean clothing.

Precautions in Storage:Do not subject to temperatures below 32 F. Store product in original container only in a location inaccessible to children and pets. Do not contaminate water, other pesticides, fertilizer, food or feed in storage. Not for use or storage in or around the home.

Other Precautions : KEEP OUT OF REACH OF CHILDREN.

Section 8. Exposure Control, personal Protection

Personal Protection ::

Applicators and other handlers must wear:

Long-sleeved shirt and long pants.

Chemical-Resistant Gloves Category A (such as butyl rubber, natural rubber, neoprene rubber, or nitrile rubber) are equal to or greater than 14 mils.

Shoes plus socks.

PPE required for early entry to treated are as that is permitted under the Worker Protection Standard and that involves contact with anything that has been treated, such as plants, soil or water, wear:

Coveralls over long sleeved shirt and long pants.



Section 9. Physical and Chemical Properties

Appearance / state	:	Light Amber, Liquid
Colour	:	Light Amber
Odour	:	Faint burn smell
pH	:	6.6 (1% solution in water)
Density	:	0.947 g/mL (20 C)
Flash Point	:	69 °C
Viscosity	:	5.6 cps @ 25 C at 60 rpm

Section 10. Stability & Reactivity

Incompatibility with Other Materials

None reasonably foreseeable

Section 11. Toxicological Information

Animal data

Oral LD50: >977mg/kg in male rats

Dermal LD50: > 5000 mg/kg in rats (Slight to very low toxicity)

Inhalation 4 hour LC50:> 2.7 mg/L in rats (Very low toxicity)

Eye Irritation: Rabbit, slight irritant

Skin Irritation: Rabbit, slight irritant

Sensitization: Guinea pig, Non sensitizer

Section 12. Ecological Information

AQUATIC TOXICITY:

96 hour LC50 - Rainbow trout: 0.65 mg/L. Highly toxic.

48 hour LC50 - Daphnia magna: 0.60 mg/L. Highly toxic.

Acute Oral LD50 - Bobwhite Quail: 98 mg/kg.

48 hours LD 50- Bees: (oral) 0.26 µg/bee

(Contact) 0.094 µg/bee



Section 13. Disposal Consideration

Waste Disposal

Do not contaminate water, food, or feed by storage or disposal. Pesticide wastes are acutely hazardous. Improper disposal of excess pesticide, spray mixture, or rinsate is a violation of Federal Law. If these wastes cannot be disposed of by use according to label instructions, contact your State Pesticide or Environmental Control Agency, or the Hazardous Waste representative at the nearest EPA Regional Office for guidance.

ENVIRONMENTAL HAZARDS

This pesticide is toxic to mammals, birds, fish, and aquatic invertebrates. Do not apply directly to water, to areas where surface water is present or to intertidal areas below the mean high water mark. Do not contaminate water when disposing of equipment rinsewater. Do not apply where/when conditions could favor run-off. Run-off from treated areas may be hazardous to aquatic organisms in neighboring areas.

This product is highly toxic to bees exposed to direct treatment on blooming crops or weeds. Do not apply this product or allow it to drift to blooming crops or weeds while bees are actively visiting the treatment area.

Container Disposal:

Container Refilling and Disposal: Refer to the product label for instructions.

Do not transport if the container is damaged or leaking.

Section 14. Transport Information

IMDG Classification

Shipping name : Environmentally hazardous substance, liquid, n.o.s
(Indoxacarb)

Class : 9.0

Packing group : III

UN number : 3077

Marine pollutant : Yes



Section 15. Regulatory Information

Contains:Indoxacarb 15% EC

Risk Phrases:R20, R22, 36, 40, 43

Safety Phrases:S2, S36/37, 46

Section 16. Other Information

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 presented 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 here is properly read and understood by all people who may use, handle, dispose or in any way come in contact with the product. If the recipient subsequently produce formulations containing this product, it is the recipient's sole responsibility to ensure the transfer of all relevant information from this MSDS to their own MSDS.

Safety Division: PERFECT SOLUTIONS, SAFETY DIVISION