

Indoxacarb -MATERIAL SAFETY DATA SHEET

Manufacturer/information service:

ZHEJIANG RAYFULL CHEMICALS CO.,LTD

ADD: NO.113 PUXING ROAD, PUZHOU INDUSTRIAL PARK, LONGWAN DISTRICT, WENZHOU ZHEJIANG P.R. CHINA

Tel: +86-577-88905587

Fax: +86-577-88905567

Email: info@rayfull.com

sales@rayfull.com

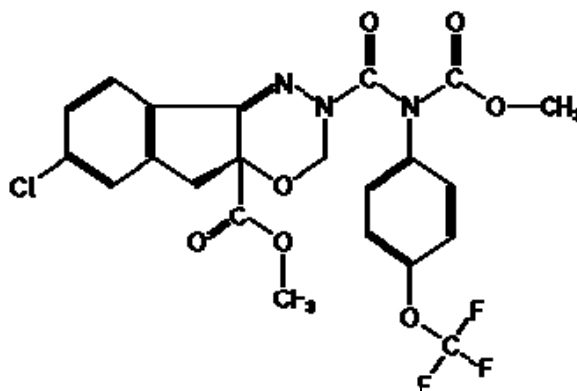
1. Chemical Product Identification

Product Name: Indoxacarb

Molecular Formula: C₂₂H₁₇ClF₃N₃O₇

Molecular Weight: 527.83

Structural Formula:



Chemical Name: methyl (4aS)-7-chloro-2,5-dihydro-2-[[[(methoxycarbonyl) [4-(trifluoromethoxy)phenyl]amino]carbonyl]indeno[1,2-e][1,3,4]oxadiazine-4a(3H)-carboxylate

Form: Cylindrical crystal

Color: Off-white

Odor: Not applicable

CAS No.: 173584-44-6

2. Composition / Information on Ingredients

Composition	CAS No.	Content
Indoxacarb	173584-44-6	30%

Other ingredients		70%
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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, vapor or spray mist). Remove contaminated clothing and wash clothing before reuse. Prolonged or frequently repeated skin contact may cause allergic reactions in some individuals.

Potential Health Effects:

Based on data from animal testing, Indoxacarb may cause mild eye irritation with tearing, pain or blurred vision. Based on data from animal testing, Indoxacarb may cause irritation with itching, burning, redness, swelling or rash. Indoxacarb may cause skin sensitization with allergic rashes. Based on data from animal testing, ingestion of large amounts of Indoxacarb may cause alteration in blood cell counts and/or anemia.

Carcinogenicity Information:

None of the components present in this material at concentrations equal to or greater than 0.1% are listed by IARC, NTP, OSHA or ACGIH as a carcinogen.

4. First Aid Measures

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.

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

Inhalation: Move person to fresh air. If person is not breathing, call 911 or an ambulance, then give artificial respiration, preferably by mouth-to-mouth, if possible. Call a poison control center or doctor for further treatment advice. Have the product container or label with you when calling a poison control center or doctor, or going for treatment. You may also contact 1-800-441-3637 for emergency medical treatment information.

Swallow: Call a poison control center or doctor immediately for treatment advice. Have a 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.

5. Fire-Fighting Measures

Flammable Properties

Flash Point : 103.3°C

Autoignition : 266.5°C

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

Fire Fighting Instructions: 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.

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, 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.

7. Handling and Storage

Handling (Personnel)

Users should: 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.

Storage: Do not subject to temperatures below 32 degrees 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.

8. Exposure Controls/Personal Protection

Engineering Controls: Use only with adequate ventilation. Keep container tightly closed.

Personal Protective Equipment: Some materials that are chemical resistant to this product are listed below. If you want more options follow the instructions for Category A on the EPA chemical resistance category selection chart.

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. Follow manufacturer 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.

PPE required for early entry to treated areas 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. Socks plus chemical resistant footwear.

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

9. Physical and Chemical Properties

Odor: Mild Lignin.

Form: Granular.

Color: Brown (dark).

Density: 0.8 g/mL

Vapor Pressure: 2.5×10^{-8} Pa (a.i.)

Solubility in Water: 0.2ppm (a.i.)

10. Stability and Reactivity

Incompatibility with Other Materials: None reasonably foreseeable.

Stable at normal temperatures and storage conditions.

Decomposition will not occur.

11. Toxicological Information

Oral LD50: 1867 mg/kg in male rats

Oral LD50: 687 mg/kg in female rats

Dermal LD50: > 5000 mg/kg in rats

Inhalation LC50, 4 hr: > 5.6 mg/L

Indoxacarb is an eye irritant, and a slight to mild skin irritant. It is not a skin sensitizer.

The NOEL for neurotoxicity was 100 mg/kg for male rats and 12.5 mg/kg for female rats.

The No-Observed-Effect-Level (NOEL) in a 90-day repeated oral dosing study was 100ppm for male rats and 25ppm for female rats.

The NOEL for the two-year rat feeding study was 60ppm for male rats and 40ppm for female rats.

The NOEL for the eighteen month mouse feeding study was 20ppm in male and female mice.

12. Ecological and Ecotoxicological Information

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

96 hour LC50 - Bluegill sunfish: 0.90 mg/L.

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

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

Acute Dietary LC50 - Bobwhite Quail: 808ppm.

Acute Dietary LC50 - Mallard Duck: > 5620ppm

13. Disposal Considerations

Waste Disposal

Do not contaminate water, food, or feed by disposal. 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.

Container Disposal

For Plastic Containers: Triple rinse (or equivalent). Then offer for recycling or reconditioning, or puncture and dispose of in a sanitary landfill, or incineration, or, if allowed by state and local authorities, by burning. If burned, stay out of smoke.

For Fiber Drums with Liners: Completely empty liners by shaking and tapping sides and bottom to loosen clinging particles. Empty residue into manufacturing or application equipment. Then dispose of sack in a sanitary landfill or by incineration if allowed by State and local authorities. If the drum is contaminated and cannot be reused, dispose of in the same manner.

14. Transport Information

Not applicable.

15. Regulatory Information

Not applicable.

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 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 the recipient subsequently produce formulations containing this product, it is the recipients sole responsibility to ensure the transfer of all relevant information from this MSDS to their own MSDS.