



## MATERIAL SAFETY DATA SHEET

PRODUCT : Novaluron 5.25% + Indoxacarb 4.5% SC

PRODUCT DESIGNATION : Insecticide

### **Section 1. Product & Company Identification**

Common Name : Novaluron 5.25% + Indoxacarb 4.5% SC

Grade : Formulation

Active Ingredient : Novaluron + Indoxacarb

Chemical Name of Active Ingredient (IUPAC) : Novaluron- ( $\pm$ )-1-[3-chloro-4-(1,1,2-trifluoro-2trifluoromethoxyethoxy)phenyl]-3-(2,6difluorobenzoyl)urea

Indoxacarb- methyl (4*a*S)-7-chloro-2-[methoxycarbonyl-4-(trifluoromethoxy)phenyl]carbamoyl]-3,5-dihydroindeno[1,2-e][1,3,4]oxadiazine-4*a*-carboxylate

CAS NO. : Novaluron-116714-46-6  
Indoxacarb -144171-61-9

Chemical Family of A. I. : Insecticide

Molecular Formula of A. I. : Novaluron-  $C_{17}H_9ClF_8N_2O_4$   
Indoxacarb -  $C_3H_4N_2O$

Molecular Mass of A. I. : Novaluron - 492.7 g/mol  
Indoxacarb- 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
Novaluron a.i	5.25% w/w
Indoxacarb a.i	4.50% w/w



Dimethyl sulphoxide	7.80% w/w
Polyethylene glycol	7.20% w/w
Propylene glycol	2.00% w/w
Xanthum gum	9.70% w/w
1,2-Benzisothiazoline-3-one	0.05% w/w
Soft water	Q.S %
<b>Total</b>	<b><u>100.00% w/w</u></b>

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### Section 3. Hazard Identification

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#### Emergency Overview

Appearance and odour : Yellow to off white powder, Solid , odourless

Warning Statements : Keep out of reach of children

#### Potential Health Effects

Likely Routes of Exposure : Skin contact, Inhalation and Ingestion

Eye Contact : Non irritating to eyes. Skin contact : Non irritating to skin.

Ingestion : Harmful if swallowed.

Inhalation : Harmful if inhaled.

Environmental Hazards : The product is meant for insecticide formulation.

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### Section 4. First Aid Measures

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#### Emergency and First Aid Procedure –

**If in Eyes:** Hold eye open and rinse slowly and gently with water for 15-20min. remove contact lenses, if present, after the first 5 min, then continue rinsing eye.

**If on Skin:** Take off contaminated clothing, rinse skin immediately with plenty of water for 15-20 minutes.

**If Inhaled:** Remove to fresh air. If not breathing, give artificial respiration or give oxygen by trained personnel. Get immediate medical attention.

**If Swallowed:** Give a glass of water if able to swallow. Do not induce vomiting unless told to do so by a poison control center or doctor. Do not give anything by mouth to an unconscious person. Seek doctor for treatment advice immediately.



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## Section 5. Fire Fighting Measures

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**Hazardous product of Combustion :** On combustion or thermal decomposition it may evolve toxic and irritant vapour.

**Extinguishing Media :** Foam, Dry chemical powder, CO<sub>2</sub> type fire extinguisher or Flood with water.

**Unusual Fire and Explosion Hazards :** Emits chlorides, Oxides of nitrogen and Carbon.

**Fire Fighting Equipment :** Evacuate area and fight fire from a safe distance. Approach from upwind to avoid hazardous vapours and decomposition products. Use self-contained breathing apparatus. Used equipments should be thoroughly decontaminated.

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## Section 6. Accidental Release Measures

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**Personal Precautions:** Personnel handling this material should be thoroughly trained to handle spills and releases. Wear appropriate gear for the situation.

**Environmental Precautions:** Do not flush to drain. If spilled on the ground, the affected area should be scraped and placed in an appropriate container for disposal. Prevent material from entering public sewer system or any waterway.

**Steps to be taken in case of a spill:** Obey all Federal, State or local regulations for health & safety and environmental protection when the accidental release is treated. Sweep up, place in a bag and hold for waste disposal. Wash spill site with soap and plenty of water after material pick-up is complete. Do not discharge to river, sea, lake, waterway or sewer systems directly.

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## Section 7. Handling & Storage

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**Precautions in Handling:** Avoid breathing dust. Keep container tightly closed; flush container clean before discarding. Do not reuse container. Do not apply when weather conditions may cause drift. Do not allow this product to drift to non-target areas.

**Precautions in Storage:** Store in the closed, original container in a cool, secure, well-ventilated area.

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## Section 8. Exposure Control, Personal Protection

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**Personal Protection :** Appropriate respirator for dust. Working cloths with long sleeves and long pants.

**Protective Gloves:** Outside: Polyvinyl chloride, or Rubber. Inside: Cotton , rayon Polyethylene.

**Eye Protection:** Use safety glasses. If there is a potential to exposure for dust, wear safety goggles.

**Skin Protection:** Wearing protective gloves is recommended. Wash hands and contaminated skin thoroughly after handling.

**Engineering Control:** Use process enclosures, local exhaust ventilation, or other engineering controls to control airborne levels below recommended exposure limits.

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## Section 9. Physical and Chemical Properties

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Appearance / state	:	Liquid
Color	:	Creamish color suspension
Odour	:	Characterstic odor
Melting Point	:	NA
pH	:	6.5
Corrosivity	:	Non corrosive
Solubility	:	Soluble in organic solvents
Flash Point	:	86° C

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## Section 10. Stability & Reactivity

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**Chemical Stability:** Chemically stable under normal storage and handling conditions

**Condition to Avoid:** Avoid high temperature.

**Incompatible Materials:** oxidizing agents , strong acids , strong bases

**Hazardous Polymerization:** will not occur

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## Section 11. Toxicological Information

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<b>Oral LD50</b>	:	rat >5000 mg/kg.
<b>Skin Contact, Dermal LD50</b>	:	rat > 2000 mg/kg.
<b>Inhalation, (4 hr) LC50</b>	:	for rat 3.5mg/l.
<b>Eye Irritation</b>	:	Non-Irritating to eyes



**Skin Irritation** : Non- Irritating to skin  
**Sensitization** : Non- Sensitizing (guinea pig)

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## Section 12. Ecological Information

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**Acute Oral Toxicity in Birds** : LD50 for bobwhite quail 325 mg/kg.  
**Acute Toxicity in Fish** : LC50 (24-96 hr) for carp >1 mg/L.  
**Acute Toxicity Honey bees** : >110 µg/bee LD50 (48 h) contact >100 µg/bee  
**Acute Toxicity in Daphnia Magna** : LC50 (48 h) 0.259 µg/l

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## Section 13. Disposal Consideration

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**Waste Treatment Methods:** Contaminated absorbents, surplus product (in diluted form), etc., should be buried in approved landfill. Comply with any local legislation applying to waste disposal. Whatever cannot be saved for recovery or recycling should be handled as hazardous waste and sent to a RCRA approved waste facility. Processing, use or contamination of this product may change the waste management options.

**Containers:** For incinerate this material at a facility that. Refer to the product label for container disposal instructions. Do not re-use empty containers

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## Section 14. Transport Information

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### IMDG Classification

Shipping name : ENVIRONMENTALLY HAZARDOUS SUBSTANCE,  
LIQUID, N.O.S.  
Class : 9  
Packing group : III  
UN number : 3082  
Marine pollutant : Yes

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## Section 15. Regulatory Information

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Risk Phrase

R22 Harmful if swallowed.

Safety phrase

S 2 Keep out of reach of children.



S 37/39 Wear suitable gloves and eye/face protection.

S 46 If swallowed seek medical advice immediately and show this container or label.

S 61 Avoid release to the environment.

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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 the recipient subsequently produces 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. Accordingly, no guarantee or warrantee expressed or implied is made by PERFECT SOLUTIONS, as to the results to be obtained based upon the user's use of the information, nor does PERFECT SOLUTIONS, assume any liability arising out of user's use of the information.

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