

**1: IDENTIFICATION**

Chemical Name	Flubendiamide:1-N-[4-(1,1,1,2,3,3-heptafluoropropan-2-yl)-2-methylphenyl]-3-iodo-2-N-(2-methyl-1-methylsulfonylpropan-2-yl)benzene-1,2-dicarboxamide	
Synonyms	Thiacloprid: [3-[(6-chloro-3-pyridinyl)methyl]-1,3-thiazolidin-2-ylidene]cyanamide	<b>Trade Name</b> MAGNA
Uses	Flubendiamide 19.92% + Thiacloprid 19.92% SC	<b>Molecular Formula</b> C <sub>25</sub> H <sub>22</sub> F <sub>7</sub> IN <sub>2</sub> O <sub>4</sub> S + C <sub>10</sub> H <sub>9</sub> CIN <sub>4</sub> S
Manufacturer/ Supplier	Ulink AgriTech Pvt. Ltd. Office Nos. 001 And 002, Ground Floor Wing "A" And Nos. 003 And 004 Ground Floor Wing "B", Nyati Tech Park, Wadgaon Sheri, Pune - 411014, Maharashtra	
Emergency Contact	9503095030	E-mail <a href="mailto:info@agrostar.in">info@agrostar.in</a>

**2: COMPOSITION/INFORMATION OF INGREDIENTS**

Chemical Name	CAS #	Percent or Content (w/w)
Thiacloprid	111988-49-9	19.92%
Flubendiamide	272451-65-7	19.92%
Mixture of: 5-chloro-2-methyl-4-isothiazolin-3-one and 2-methyl-4-isothiazolin-3-one	55965-84-9	> 0.0002% – < 0.0015%
1,2-Benzisothiazol-3(2H)- one	2634-33-5	> 0.005% – < 0.05%
Glycerine	56-81-5	>1%

**3: HAZARD IDENTIFICATION**

**Classification of the Substance or Mixture:** Classification in accordance with Regulation (EC) No 1272/2008 on classification, labelling and packaging of substances and mixtures, as amended.

**Acute Toxicity:** Category 4, H302 Harmful if swallowed.

**Carcinogenicity:** Category 2, H351 Suspected of causing cancer

**Reproductive Toxicity:** Category 1B, H360Fd May damage fertility. Suspected of damaging the unborn child.

**Acute Aquatic Toxicity:** Category 1, H400 Very toxic to aquatic life

**Chronic Aquatic Toxicity:** Category 1, H410 Very toxic to aquatic life with long lasting effects.

**4: FIRST AID MEASURES**

**General:** This product is not likely to be hazardous but follow the below instruction in case is advisable. Have the product container, label or safety data sheet while seeking medical attention, a poison control center or physician, or going for treatment.

**Inhalation:** Move patients to fresh air and keep warm and at rest in a position comfortable for breathing. Treat respiratory difficulty with artificial respiration and oxygen. Immediately seek medical attention if symptoms are severe or persist

**Ingestion:** Rinse mouth with water thoroughly and give plenty of water to drink. Do not induce vomiting. Seek medical attention or poison control center immediately and show this container or label.

**Skin Contact:** In case of contact with product, gently wipe excess product and wash immediately skin area with plenty of water and soap. Remove and isolate contaminated clothing and shoes. Seek medical attention if irritation persists.

**Eye Contact:** Rinse immediately with plenty of water for several minutes. After 5 minutes remove contact lenses if present and continue rinsing with plenty of water. Continue to rinse with eyelid wide open for at least 15-20 minutes. Seek medical attention if irritation develops.

**Most Important Symptoms and Effects, Both Acute and Delayed:** Nausea, Vomiting, Diarrhoea, Salivation, Headache, Dizziness, Confusion, Restlessness, Bradycardia, Tachycardia, Coma, Hypotension, Respiratory paralysis

**Note to Physician:** In case of ingestion gastric lavage should be considered in cases of significant ingestions only within the first 2 hours. However, the application of activated charcoal and sodium sulphate is always advisable. No specific Antidote. Treat symptomatically.

**5: FIRE FIGHTING MEASURES**

**Extinguishing Media:** Water spray, alcohol-resistant foam, dry chemical powder or carbon dioxide

**Specific Hazards:** In the event of fire the following may be released: Hydrogen chloride (HCl), Hydrogen cyanide (hydrocyanic acid), Hydrogen fluoride, Carbon monoxide (CO), Sulphur oxides, Nitrogen oxides (NO<sub>x</sub>).

**Special Procedures:** Collect extinguishing water separately and do not discharge into the drain or water bodies. If risk of water pollution occurs, notify appropriate authorities. If area is heavily exposed to fire and if conditions permit, let fire burn itself out since water may increase the area contaminated. Cool containers with water spray. Dispose of fire debris and contaminated extinguishing water in accordance with official regulations.

**Protection of Fire Fighters:** In the event of fire and/or explosion do not breathe fumes. In the event of fire, wear self-contained breathing apparatus.

**6: ACCIDENTAL RELEASE MEASURES**

**Personal Precautions:** Ensure adequate ventilation. Avoid contact with the skin, eyes and clothing. Use personal protective equipment. Evacuate personnel to safe areas and keep them away from and upwind of spill/leak.

**Environmental Precaution:** Do not allow runoff to enter drains and public waters. Notify the authorities if product enters.

**Methods for Cleaning-up:** Adsorb spillages with a sand, silica gel, acid binder, universal binder, sawdust or other absorbent material. Collect and transfer into waste disposal containers. Clean contaminated floors and objects thoroughly with water and detergents. Never return spills in original containers for re-use. Dispose of in accordance with local regulations.

**7: HANDLING & STORAGE**

**Handling:** Do not smoke, drink, or eat during handling. Wash hands and other exposed areas with mild soap and water before and after handling material. Wear protective equipments to avoid contact and/or inhalation with the product. Wash clothing and equipment before reuse. Good personal hygiene procedures must be practiced.

**Specific conditions:** Good local exhaust ventilation.

**Storage:** Store in dry, cool, well-ventilated area and away from direct sunlight. Keep in original container and tightly closed when not in use. Keep product away from seeds, fertilizer, foods and animal feeds.

**8: EXPOSURE CONTROL/PERSONAL PROTECTION**

**Control Parameters:** Thiacloprid: 0.34 mg/m<sub>3</sub> (TWA)      Flubendiamide: 0.5 mg/m<sub>3</sub> (TWA)      Glycerine (Mist.): 10 mg/m<sub>3</sub> (TWA)

**Engineering Measures:** Ensure adequate ventilation. Handle in accordance with good industrial hygiene and safety practice.

**General Protection:** Avoid breathing dust, vapours or aerosols. Avoid contact with eyes and skin. While handling the product wear cotton overalls buttoned to the neck and wrist, elbow-length PVC gloves. After use and before eating, drinking and smoking, wash hands, arms and face thoroughly with soap and water. After each day's use, wash gloves and contaminated clothing.

**Personal Protection:** Follow all precautions and instructions on the label. In all other cases the following recommendations would apply.

**Respiratory Protection:** No personal respiratory protective equipment normally required. Use NIOSH/MSHA approved respiratory protection equipment with dust/mist cartridge where airborne concentrations are expected to exceed exposure limits.

**Skin Protection:** Wear suitable protective clothing, including long sleeved shirt, long pants, gloves, coveralls, and boots to avoid skin contact.

**Hand Protection:** Chemical-resistant gloves made of any waterproof material such as barrier laminate, butyl rubber, nitrile rubber, neoprene rubber, natural rubber, polyvinyl chloride (PVC) or Viton.

**Eye Protection:** Safety glasses with side-shields. Safety showers and eyewash should be easily available.

**Others:** Wash clothing before reusing.

## 9: PHYSICAL/CHEMICAL PROPERTIES

**Appearance:** Liquid, suspension

**pH at 100 % (23 °C):** 6.0 - 8.0

**Physical State:** Liquid

**Flash Point [°C]:** > 100

**Colour:** White to light beige

**Density[g/cc]:** 1.21

**Odour :** Characteristic

**Oxidizing properties:** No oxidizing properties

## 10: STABILITY & REACTIVITY

**Stability:** Stable under normal circumstances.

**Conditions to Avoid:** Extremes of temperature and direct sunlight.

**Hazardous Decom. Products:** No decomposition products expected under normal conditions of use

**Materials to Avoid:** Store only in the original container. Suitable materials: HDPE (high density polyethylene)

**Possibility of Hazardous Reactions:** No hazardous reactions when stored and handled according to prescribed instructions.

## 11: TOXICOLOGICAL INFORMATION

**Acute Oral Toxicity:** Rat oral LD50 [mg/kg] : > 300 - < 2000

**Acute Inhalation Toxicity:** Rat inhalation LC50 [mg/l/4h] : > 2.523

**Acute Dermal Toxicity:** Dermal (rat) LD50 [mg/kg]: > 2000

**Skin Sensitization (Guinea Pig):** Non-sensitizer

**Skin irritation (rabbit):** Non-irritant

**Eye irritation (rabbit):** Non-irritant

**STOT Specific Target Organ Toxicity – Single Exposure:** Thiacloprid: May cause drowsiness or dizziness.

Flubendiamide: Based on available data, the classification criteria are not met

**STOT Specific Target Organ Toxicity – Repeated Exposure:** Thiacloprid did not cause specific target organ toxicity in experimental animal studies.

Flubendiamide did not cause specific target organ toxicity in experimental animal studies.

**Mutagenicity:** Thiacloprid was not mutagenic or genotoxic in a battery of in vitro and in vivo tests. C was not mutagenic or genotoxic in a battery of in vitro and in vivo tests

**Carcinogenicity:** Thiacloprid causes tumors in rodents (rats: uterus and thyroid; mice: ovaries) but only at high dose levels. The mechanism is non-genotoxic and is not considered relevant at the low exposures encountered under normal use conditions. Flubendiamide was not carcinogenic in lifetime feeding studies in rats and mice as not carcinogenic in lifetime feeding studies in rats and mice.

**Reproduction Toxicity:** Thiacloprid caused reproduction toxicity in rats (including difficulties in parturition) but only at dose levels that were also toxic to the parent animals. The mechanism for the parturition effect is not considered relevant to humans. Flubendiamide does not cause reproductive toxicity in rats.

**Developmental Toxicity:** Thiacloprid caused developmental toxicity only at dose levels toxic to the dams. The developmental effects seen with Thiacloprid are related to maternal toxicity. Flubendiamide did not cause developmental toxicity in rats and rabbits.

## 12: ECOLOGICAL INFORMATION

**Ecotoxicity:**

Bluegill sunfish LC50 (96 hrs)[mg/L]: 80.7

Daphnia magna EC50(48 hrs) [mg/L]: 0.0065

Algae EC50 (96 h) [mg/L]: > 250

**Bio-accumulation Potential:** Does not bioaccumulate.

**Persistence, Degradability and Mobility in soil:**

Not rapidly biodegradable. Slightly mobile in soils

**Results of PBT and vPvB assessment:** Thiacloprid and flubendiamide are not considered to be persistent, bioaccumulative and toxic (PBT). This substance is not considered to be very persistent and very bioaccumulative (vPvB).

**Additional Ecological Information:** No other effects to be mentioned.

## 13: DISPOSAL CONSIDERATION

**Waste-disposal procedures:** Do not contaminate drains, streams, rivers or waterways with the chemical or used container. In accordance with current regulations and, if necessary, after consultation with the site operator and/or with the responsible authority, the product may be taken to a waste disposal site or incineration plant or dispose of only according to the label.

**Contaminated packaging:** Contaminated packaging should be emptied as far as possible and disposed of in the same manner as the product. Do not reuse the empty container

## 14: TRANSPORT INFORMATION

**UN No.** 3082

**Proper Shipping Name:** Environmentally Hazardous Substance, Liquid, N.O.S (THIACLOPRID SOLUTION )

**Land Transport (ADR/RID):** Class-9, Packing Group-III, Environm. Hazardous Mark - Yes

**Sea Transport (IMO) (IMDG):** Class-9, Packing group-III, Marine Pollutant-Yes

**Air Transport (IATA / ICAO):** Class-9 Packing group-III, Environmental hazard mark-Yes

**Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code:** No transport in bulk according to the IBC Code

## 15: REGULATORY INFORMATION

**Safety, Health and Environmental Regulations/Legislation Specific for the Substance or Mixture:** WHO-classification: II (Moderately hazardous)

**Hazardous components which must be listed on the label:** Thiacloprid, Flubendiamide

**Hazard Symbol:** GHS07, GHS08, GHS09

**H- Statement:** H302, H351, H410, H360FD, EUH208, EUH401

## 16: OTHER INFORMATION

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