

1: IDENTIFICATION

Chemical Name	4-amino-6-tert-butyl-4, 5-dihydro-3- methylthio-1, 2, 4-triazin-5-one		
Synonyms	Metribuzin 70% WP	Trade Name	WAARIS® (WAARIS)
Uses	Herbicide	Molecular Formula	C ₈ H ₁₄ N ₄ OS
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	info@agrostar.in

2: COMPOSITION/INFORMATION OF INGREDIENTS

Chemical Name	CAS #	Percent or Content (w/w)
Metribuzin	21087-64-9/ 244-209-7	70.00%
Other Ingredients	-	Q.S

3: HAZARD IDENTIFICATION

Human Health Hazard: **Acute Effects:** May cause eye irritation; May cause skin irritation; Harmful if swallowed
Effect on Exposure: Acute - Excessive salivation, sweating, fatigue, weakness, nausea, headache, dizziness, eye and respiratory tract irritation.
 Chronic - Same as above, plus conjunctivitis, photophobia, and blurred vision.

4: FIRST AID MEASURES

General: Have the product container, label or safety data sheet while seeking medical attention, a poison control center or physician, or going for treatment.

Inhalation: No first aid measures normally required. However, if vapors or mists have been inhaled, and irritation has developed, move patients to fresh air and keep warm and at rest in a position comfortable for breathing. Observe until recovered. Immediately seek medical attention if symptoms are severe or persist.

Ingestion: Ipecac Syrup APF should be available in the area where product is used, or in a first aid box. If swallowed, and if more than 15 minutes from a hospital, induce vomiting, preferably using Ipecac Syrup APF. Seek medical attention or poison control center immediately and show this container or label.

Skin Contact : In case of contact with product, remove contaminated clothes and wash exposed skin area with plenty of water and soap immediately. 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.

Note to Physician: No specific Antidote. Treat symptomatically.

5: FIRE FIGHTING MEASURES

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

Unsuitable Extinguishing Media: Water jet

Specific Hazards: Exposure to harmful and toxic fumes released during the combustion of product

Hazardous Thermal (de)composition: In the event of fire, toxic and noxious fumes of oxides of carbon, nitrogen or sulphur and hydrogen cyanide (hydrocyanic acid) may release.

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. Dispose of fire debris and contaminated extinguishing water in accordance with official regulations.

Protection of Fire Fighters: Do not breathe a fumes, Wear fire/flame resistant/retardant clothing and self-contained breathing apparatus.

6: ACCIDENTAL RELEASE MEASURES

Personal Precautions: Ensure adequate ventilation. Ensure all sources of ignition is removed. 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: Use mechanical handling equipment. Collect and transfer into waste disposal containers. Clean contaminated floors and objects thoroughly with water and detergents. 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. Keep away from heat and sources of ignition. Dust may form explosive mixture in air. Keep in original container and tightly closed when not in use. Keep product away from children, seeds, fertilizer, foods and animal feeds.
 Storage temperature: min. -10°C - max. 40°C.

8: EXPOSURE CONTROL/PERSONAL PROTECTION

Exposure Standards: The Time Weighted Average (TWA) for Metribuzin (present in significant quantities) is 5 mg/m³, representing the 8-hour daily average concentration limit. For non occupational safety, the Acceptable Daily Intake (ADI) is 0.02 mg/kg/day, corresponding to a No Observed Effect Level (NOEL) of 2 mg/kg/day

Engineering Measures: Ensure adequate ventilation to maintain concentration values below the TWA value. 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: It is usually safe to not use a dust mask or respirator protection on account of this product. Use NIOSH/MSHA approved respiratory protection equipment if the product is being used in dusty or confined conditions

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 goggles, chemical splash goggles or face shield should be used. Safety showers and eyewash should be easily available.

Others: Wash clothing before reusing.

9: PHYSICAL/CHEMICAL PROPERTIES

Appearance : Powder **Physical State:** Solid **Odour:** Characteristic odour **Solubility in Water:** Dispersible

Boiling Point : No specific data. Expected to decompose before boiling **Corrosiveness :** Non-corrosive

10: STABILITY & REACTIVITY

Stability: Stable under normal circumstances.

Conditions to Avoid: No data available

Hazardous Decomp. Products: On combustion or thermal decomposition, carbon dioxide, and if combustion is incomplete, carbon monoxide and smoke, nitrogen and its compounds, and under some circumstances, oxides of nitrogen, oxides of sulphur and other sulphur compounds and water

Materials to Avoid: Strong oxidizing agents

11: TOXICOLOGICAL INFORMATION

Rat oral LD50 [mg/kg] : 7095.56	Rat inhalation LC50 [mg/l/4h] : No data available	Skin irritation (rabbit): Non-irritant
Dermal (rat) LD50 [mg/kg] : >2000	Skin Sensitization (Guinea Pig): Non-sensitizer	Eye irritation (rabbit): Non-irritant

12: ECOLOGICAL INFORMATION

Ecotoxicity:

Rainbow trout LC50 (96 hrs)[mg/L] : 76 Mallard ducks LC50(oral)[mg/L] : >460-680

Honey Bee LC50[µg/bee] : Non-toxic to bee

Bio-accumulation Potential: No data available

Persistence, Degradability and Mobility in soil: No data available

13: DISPOSAL CONSIDERATION

Waste-disposal Procedures: Dispose of this product only according to the label. Do not contaminate drains, streams, rivers or waterways with the chemical or used container.

Contaminated Packaging: Break, crush, or puncture and deliver empty packaging for appropriate disposal to an approved waste management facility. If an approved waste management facility is not available, bury the empty packaging 500 mm below the surface in a disposal pit specifically marked and set up for this purpose clear of waterways, desirable vegetation and tree roots, in compliance with relevant Local, State or Territory government regulations. Do not burn empty containers or product.

14: TRANSPORT INFORMATION

UN No. 3077 **Proper Shipping Name:** Environmentally Hazardous Substance, solid, N.O.S (Metribuzin Mixture)

Land Transport (ADR/RID): Class-9, Packing Group-III, Tunnel Code E

Sea Transport (IMO) (IMDG): Class-9, Packing group-III, Marine Pollutant-Yes, EmS F-A, S-F

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

15: REGULATORY INFORMATION

Hazard Symbol: Xn Harmful, N - Dangerous for the environment

WHO-Classification: III (Slightly hazardous)

Risk Phrase: R 22, R 50/53

Safety Phrase: S35, S57

Exceptional Labelling : To avoid risks to man and the environment, comply with the instructions for use.

16: OTHER INFORMATION

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