

1: IDENTIFICATION

Chemical Name	Clodinafop-propargyl- Prop-2-ynyl(R)-2-[4-(5-chloro-3-fluoro-2- pyridyloxy) phenoxy] propionate Metribuzin- 4-amino-6-tert-butyl-4,5-dihydro-3-methylthio-1,2,4-triazin-5-one		
Synonyms	Clodinafop-propargyl 9%+ Metribuzin 20% WP	Trade Name	CLAUDIUS ADVANTAGE
Uses	Herbicide	Molecular Formula	C ₁₇ H ₁₃ ClF ₃ NO ₄ + 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)
Clodinafop-propargyl	105512-06-9	9.0%
Metribuzin	21087-64-9	20.0%
Safener(Cloquintocet-mexyl)	-	2.3%
Dispersing agent(N-methyl oleyl tourate sodium salt and blend of sodium salt of alkyl benzene sulfonate)	-	8.50%
Wetting agent(Alkoxylated alcohol)	-	21.0%
PPT silica (Precipitated silica)	-	Q.S. to make 100.00%

3: HAZARD IDENTIFICATION

Harmful if swallowed.

Very toxic to aquatic organisms may cause long-term adverse effects in the aquatic environment.

4: FIRST AID MEASURES

General: Consult a physician. Show this safety data sheet to the doctor in attendance.

Inhalation: Move patients to fresh air and keep warm and at rest in a position comfortable for breathing. Immediately seek medical attention if symptoms are severe or persist

Ingestion: If swallowed, induce vomiting by tickling back of throat. Repeat it until the vomit fluid is clear. Call a poison control center or doctor immediately for treatment advice.

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

Eye Contact: 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.

Note to physician: No specific antidote. Treat symptomatically.

5: FIRE FIGHTING MEASURES

Extinguishing Media: Small fires : Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide. Large fires : Alcohol-resistant foam or Water spray.

Hazardous Thermal (de)composition: Fire will spread by burning with a visible flame. As the product contains combustible organic components, fire will produce dense black smoke containing hazardous products of combustion. Exposure to decomposition products may be a hazard to health.

Special Procedures: Evacuate area and fight fire upwind from a safe distance to avoid hazardous vapors and decomposition products. Dike and collect water used to fight fire to prevent environmental damage due to runoff. Minimize use of water to prevent environmental contamination.

Protection of Fire Fighters: Wear full protective clothing and self contained breathing apparatus.

6: ACCIDENTAL RELEASE MEASURES

Personal Precautions: Use protective clothing. Avoid contact with skin, eyes and clothing. Remove contaminated clothes and shoes immediately.

Environmental Precaution: Do not discharge into drains/surface waters/groundwater. Do not discharge into the subsoil/soil.

Methods for Cleaning up: Absorb spills with inert material and place in waste containers. Wash area with water and absorb with further inert material.

7: HANDLING & STORAGE

Handling: Use only in area provided with appropriate ventilation. Dust may form explosive mixtures with air. Keep away from heat and sources of ignition. Keep product in original tightly closed container. Avoid inhalation of particles. Do not get on skin, eyes or clothing. Do not eat, drink or smoke when handling. Wash hands before eating, drinking or smoking.

Storage: Keep the herbicide in a cool and dry place away from heat and open flame. The packages containing herbicide shall be stored in separate room or premises away from room or premises used for storing other articles or shall be kept away from the reach of children and animals in separate almirahs under lock and key depending upon the quantity and nature of herbicide. The room means for herbicide storage must be wellbuilt, dry, well lit and ventilated and of sufficient dimensions to avoid contamination with vapor of herbicide.

8: EXPOSURE CONTROL/PERSONAL PROTECTION

Engineering Measures: Facilities storing or utilizing this material should be equipped with an eyewash facility and a safety shower. Proper ventilation is required to minimize exposure to airborne contaminants.

General Protection: Do not eat, drink, or handle tobacco in areas where there is a potential for exposure to this material. Always wash thoroughly after handling.

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

Respiratory Protection: A respirator is not normally required when handling this substance. Use process enclosures, local exhaust ventilation, or other engineering controls to keep airborne levels below exposure limits.

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.

Skin Protection: Wear chemical-resistant (such as nitrile or butyl) gloves, coveralls, socks and chemical resistant footwear. For overhead exposure, wear chemical-resistant headgear.

Eye Protection: Protective eyewear or respirator if vapors cause eye discomfort.

9: PHYSICAL/CHEMICAL PROPERTIES

Appearance: Off-white homogeneous fine powder	Material passing through 75 µ IS sieve Min: 98.0% by mass	% Persistent foam Maximum: 60 ml after 1 mi
Suspensibility, % by mass Min.: 80.0%	Wettability, in seconds Max.: 120	Odour: Characteristic odour

10: STABILITY & REACTIVITY

Stability: Stable under normal conditions of storage

Conditions to Avoid: Extremes of temperature and direct sunlight

Hazardous decomposition products: Evolution of ammonia under influence of alkaline substances

Materials to avoid: Incompatible with bases.

11: TOXICOLOGICAL INFORMATION

Clodinafop Propargyl (Technical):	Acute oral toxicity: 1202 mg/kg(male rat)	Dermal toxicity: >2000 mg/kg	Eye irritation: Non irritant
	Acute inhalation toxicity: >2.325 mg/mm ³	Skin irritation: Non irritant	Sensitization: Potential skin sensitizer
Metribuzin(Technical):	Acute oral toxicity: >510 mg/kg(male rat)	dermal toxicity: >20,000 mg/kg	Skin irritation: Non irritant
	Acute inhalation toxicity: >0.65 mg/l	Eye irritation: Non irritant	

12: ECOLOGICAL INFORMATION

Clodinafop Propargyl (Technical):	Birds: LD50(8d) for mallard duck>2000, bobwhite quail 1455 mg/kg	For daphnia: LC50 (48 h) >60 mg/l
	Fish: LC50 (96 h) for rainbow trout 0.39, carp0.46, catfish 0.43mg/toxicity	Honey bee: oral and contact LD50: >100 µg/bee
Metribuzin(Technical):	Birds:The acute oral LD50 values are about 100 to 200 mg/kg in bobwhite quail, mallard ducks, and Japanese quail	
	Fish:The 96-hour LC50 is 64 to 76 mg/L in rainbow trout, 80 mg/L in bluegill sunfish, and greater than 10 mg/L in goldfish	
	Honeybee: It is nontoxic to bees	

13: DISPOSAL CONSIDERATION

Waste-disposal Procedures: The used packages should not be left outside to prevent their re-use. The used packages shall be broken and buried away from habitation. The used packages or surplus material and washings should be disposed off in a safe manner so as to prevent environmental or water pollution.

14: TRANSPORT INFORMATION

UN No. 3077 **Proper Shipping Name:** ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S. (CLODINAFOF-PROPARGYL + METRIBUZIN)

Land transport (ADR / RID): Class-9, Packing Group-III

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

15: REGULATORY INFORMATION

EU- Classification: Xn Harmful

Hazard Symbol: N Dangerous for the environment

Special Risks (R-Phrases): R22 , R53, R50

Safety Advice (S- Phrases) S1/2, S13, S20/21, S22/23, S24/25, S29/35

International WHO Toxicity Classification : III Slightly hazardous

16: OTHER INFORMATION

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