

1: IDENTIFICATION

Chemical Name	Atrazine: 2-chloro-4-ethylamino-6-isopropylamino-s triazine Mesotrione: 2-[4-(methylsulfonyl)-2-nitrobenzoyl]-1,3-cyclohexanedione		
Synonyms	Mesotrione 2.27 % + Atrazine 22.7% SC	Trade Name	MESOZIN XTRA[®] (MESOZIN XTRA)
Uses	Herbicides	Molecular Formula	C ₈ H ₁₄ ClN ₅ + C ₁₄ H ₁₃ NO ₇ 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	info@agrostar.in

2: COMPOSITION/INFORMATION OF INGREDIENTS

Chemical Name	CAS #	Percent or content (w/w)
Mesotrione	104206-82-8	2.27%
Atrazine	1912-24-9	22.70%
Propylene Glycol	57-55-6	-
Other ingredients	-	Q.S

3: HAZARD IDENTIFICATION

Classification of the Substance or Mixture:

Specific Target Organ Toxicity: Repeated Category 2

Eye Damage/Irritation: Category 2B

GHS Label Elements:

Hazard Symbol: GHS08

Signal Word: Warning

Other Hazards: Flammable hydrogen gas may be formed on contact with incompatible metals. See "Conditions to Avoid", Section 10.

4: FIRST AID MEASURES

General: Have a product container or label with you when calling a poison control center or doctor, or going for treatment.

Inhalation: Move patients to fresh air. Keep the patients warm and at rest. Allow patients to rest. If person is not breathing, give artificial respiration. Immediately seek medical attention.

Ingestion: Rinse mouth with water. Do not induce vomiting unless told to by a poison control center or doctor. Do not give anything to an unconscious person. Seek medical attention immediately.

Skin Contact: In case of contact with product, immediately wash with plenty of water and soap. Remove and isolate contaminated clothing and shoes. Seek medical attention.

Eye Contact: Rinse immediately with plenty of water for several minutes with eyes wide open. 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: Eye irritation

Note to Physician: No specific antidote is available. Treat symptomatically

5: FIRE FIGHTING MEASURES

Extinguishing Media: Water Spray, Dry Chemical, Alcohol-resistant Foam, and Carbon Dioxide. If water is used to fight fire, dike and collect runoff.

Specific Hazards: Flammable hydrogen gas may be formed on contact with incompatible metals. See section 10. During a fire, irritating and possibly toxic gases may be generated by thermal decomposition or combustion.

Special Procedure: Use water to cool tanks, cisterns, or containers close to the heat source or fire. Take wind direction into account. Prevent the products used to fight the fire from going into drains, sewers, or waterways. Evacuate nonessential personnel from the area to prevent human exposure to fire, smoke, fumes or products of combustion.

Protection of Fire Fighters: Wear self-contained breathing apparatus and protective clothing to prevent contact with skin and eyes.

6: ACCIDENTAL RELEASE MEASURES

Personal Precautions: Wear self contained breathing apparatus, rubber boots and heavy rubber gloves. Avoid breathing vapors, mist, dust or gas. Ensure adequate ventilation. Evacuate personnel to safe areas.

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

Methods for Cleaning-up: Soak up with inert absorbent material such sand, diatomite, universal binder, sawdust. Collect and transfer into containers for disposal. Clean the contaminated area with water and detergent. Pick up wash liquid with additional absorbent and place into the container. Deposit waste in closed and suitable containers for disposal, in compliance with local and national regulations.

7: HANDLING & STORAGE

Handling: Avoid inhalation, contact with eyes and skin. Avoid dust and aerosol formation. Use only in areas with appropriate exhaust ventilation. Wash hands and other exposed areas with soap and water before and after handling the product. Good personal hygiene procedures must be practiced.

Storage: Store in cool, dry and well- ventilated area. Keep storage container closed when not in use. Keep away from food, feedstuffs, and domestic water supplies.

8: EXPOSURE CONTROL/PERSONAL PROTECTION

Control Parameters: The Occupational Exposure Limits for Mesotrione: 5 mg/m³ TWA (Source - Syngenta), Atrazine: 2 mg/m³ TWA (inhalable), Propylene Glycol: 10 mg/m³ TWA (Source - AIHA).

Engineering Controls: Ensure adequate ventilation. Use effective engineering controls to comply with occupational exposure limits (if applicable).

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. In case of emergency spills, use a NIOSH approved respirator with any N, R, P or HE filter.

Skin Protection: Wear appropriate working clothes including coveralls, socks and chemical-resistant footwear to avoid skin contact. Wash clothing before reusing.

Hand Protection: Compatible chemical resistant gloves such as butyl rubber, nitrile rubber, neoprene rubber, natural rubber, polyethylene, polyvinyl chloride [PVC] or Viton) recommended.

Eye Protection: Where eye contact is likely, safety goggles, chemical splash goggles or face shield for eyes protection should be used. Safety showers and eyewash should be easily available.

9:PHYSICAL/CHEMICAL PROPERTIES

Appearance: Beige liquid **Physical State:** Liquid **Colour:** Brown **Odour:** Characteristic
Boiling Point [°C]: No data available. **Flash Point (Test Method):** >100°C (Pensky-Martens CC) **pH Value:** 3.2 (1% solution in deionized H2O 25°C)
Relative Density [g/cm3]: 1.111 **Solubility in Water (20°C):** Atrazine 33 mg/l, Mesotrione 160 mg/l (99.7% pure) **Autoignition Temp.:** > 650 °C

10:STABILITY & REACTIVITY

Stability: Stable under normal circumstances **Hazardous Decomposition Products:** None known.
Materials to Avoid: Strong acids and alkalis, strong oxidising agents **Reactivity:** Not reactive
Conditions to Avoid: Concentrate should not be stored in galvanized steel, carbon steel or aluminum. Brass and/or cast iron fittings should not be used. Spray solutions should not be mixed, stored or applied in containers other than plastic, plastic-lined steel, stainless or fiberglass/plastic.
Possibility of Hazardous Reactions: The product does not present possibility of hazardous reactions.

11: TOXICOLOGICAL INFORMATION

Acute Toxicity: Ingestion: Oral (LD50 Female Rat): > 5000 mg/kg body weight **Dermal:** Dermal (LD50 Rat):> 5050 mg/kg body weight
Inhalation: Inhalation (LC50 Rat): > 2.62 mg/l air - 4 hours
Skin Corrosion/Irritation: Non-Irritating (Rabbit) **Eye Corrosion/Irritation:** Moderately Irritating (Rabbit) **Skin Sensitization:** Not a Sensitizer (Guinea Pig)
Reproductive Toxicity: Atrazine: None observed. Mesotrione: Did not show reproductive effects in animal experiments.
Carcinogenicity: Atrazine: Mammary tumors (female Sprague-Dawley rats), sex and strain specific. None observed (male Sprague-Dawley rats, F-344 rats or mice).
Mesotrione: Did not show carcinogenic effects in animal experiments
Toxicity of Other Components: Propylene Glycol: cause central nervous system depression (anesthesia, dizziness, confusion), headache and nausea. May cause eye irritation with lacrimation but no residual discomfort or injury. May cause mild to moderate irritation and possible allergic reactions. Chronic dietary exposure caused kidney and liver injury in experimental animals.
Target Organ: Atrazine: Heart Mesotrione: Blood, eye, kidney, liver Propylene Glycol: CNS, kidney, liver Other ingredients: Not Applicable

12: ECOLOGICAL INFORMATION

Eco-Acute Toxicity:
Atrazine: Bird (Bobwhite Quail) 12-day LD50 940 mg/kg Green Algae 5-day EC50 49 ppb
Fish (Rainbow Trout) 96-hour LC50 4.5 ppm Invertebrate (Water Flea) Daphnia Magna 48-hour EC50 6.9 ppm
Mesotrione: Fish (Bluegill Sunfish) 96-hour LC50 >120 mg/l Green Algae 72-hour EbC50 4.5 mg/l
Fish (Rainbow Trout) 96-hour LC50 >120 mg/l Invertebrate (Water Flea) Daphnia Magna 48-hour EC50 900 mg/l
Environmental Fate:
Atrazine: The information presented here is for the active ingredient, atrazine. Low bioaccumulation potential. Not persistent in soil. Stable in water. Highly mobile in soil.
Will leach. Sinks in water (after 24 h).
Mesotrione: The substance has low potential for bioaccumulation. Mesotrione has medium to high mobility in soil.

13: DISPOSAL CONSIDERATION

Waste-disposal Procedures: Do not contaminate drains, streams, rivers or waterways with the chemical or used container. Waste resulting from the use of this product may be disposed of onsite or at an approved disposal facility.
Contaminated Packaging: Do not reuse product containers. Dispose of product containers, waste containers, and residues according to local, state, and federal health and environmental regulations.

14: TRANSPORT INFORMATION

UN No.: 3082 **Proper Shipping Name:** Environmentally Hazardous Substance, Liquid, N.O.S. (Atrazine/Mesotrione).
Land Transport (ADR/RID): Class-9, Packaging group -III **Air Transport (IATA/ICAO):** Class-9, Packaging group - III
Sea Transport (IMO/IMDG): Class-9, Packaging group - III, Marine Pollutant -Yes

15: REGULATORY INFORMATION

EPCRA SARA Title III Classification: Section 311/312 Hazard Classes: Acute Health Hazard Section 313 Toxic Chemicals: Atrazine 34.30%
Hazard Symbol: GHS07 **H - Statements:** H373, H319
NFPA Hazard Ratings: Health: 2,Flammability: 0, Instability: 0 **HMIS Hazard Ratings:** Health: 2,Flammability: 0, Reactivity: 0

16: OTHER INFORMATION

DISCLAIMER OF LIABILITY The information in this MSDS was obtained from sources which we believe are reliable. However, the information is provided without any warranty, express or implied, regarding its correctness. The conditions or methods of handling, storage, use or disposal of the product are beyond our control and may be beyond our knowledge. For this and other reasons, we do not assume responsibility and expressly disclaim liability for loss, damage or expense arising out of or in any way connected with the handling, storage, use or disposal of the product. This MSDS was prepared and is to be used only for this product. If the product is used as a component in another product, this MSDS information may not be applicable.

----- END -----