

PH 05 51036-159

10/2/92

This draft to add worker protection language pursuant to Ciba letter of 10/20/92

**RESTRICTED USE PESTICIDE**

**(GROUND AND SURFACE WATER CONCERNS)**

**FOR RETAIL SALE TO AND USE ONLY BY CERTIFIED APPLICATORS OR PERSONS UNDER THEIR DIRECT SUPERVISION, AND ONLY FOR THOSE USES COVERED BY THE CERTIFIED APPLICATOR'S CERTIFICATION.**

**THIS PRODUCT IS A RESTRICTED USE HERBICIDE DUE TO GROUND AND SURFACE WATER CONCERNS. USERS MUST READ AND FOLLOW ALL PRECAUTIONARY STATEMENTS AND INSTRUCTIONS FOR USE IN ORDER TO MINIMIZE POTENTIAL FOR ATRAZINE TO REACH GROUND AND SURFACE WATER.**

**MICRO FLO  
ATRAZINE 80W HERBICIDE**

**ACTIVE INGREDIENTS:**

Atrazine (2-chloro-4-(ethylamino)-6-(isopropylamino)-s-triazine) .....	76.00%
Related Compounds.....	4.00%

<b>INERT INGREDIENTS:</b> .....	20.00%
<b>TOTAL.....</b>	<b>100.00%</b>

**KEEP OUT OF REACH OF CHILDREN**

**CAUTION**

**STATEMENT OF PRACTICAL TREATMENT**

**IF SWALLOWED:** Call a physician or Poison Control Center. Drink 1 or 2 glasses of water and induce vomiting by touching back of throat with finger. Do not induce vomiting or give anything by mouth to an unconscious person.

**IF ON SKIN:** Wash with plenty of soap and water.

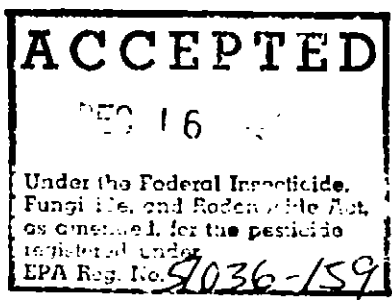
**IF IN EYES:** Flush with plenty of water. Get medical attention if irritation persists.

**IF INHALED:** Remove victim to fresh air. If not breathing, give artificial respiration, preferably mouth-to-mouth. Get medical attention.

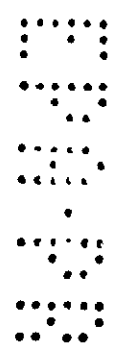
See Elsewhere On Label For Additional Precautionary Statements.

EPA Reg. No. 51036-159

EPA Est. No. 51036-GA-1



Manufactured By  
**MICRO FLO COMPANY**  
P.O. BOX 5948  
LAKELAND, FLORIDA 33807



## PRECAUTIONARY STATEMENTS

### Hazards To Humans And Domestic Animals

#### CAUTION

Harmful if swallowed. Wash thoroughly after handling. Harmful if absorbed through skin. Avoid contact with skin, eyes, or clothing. Wash thoroughly after handling. Harmful if inhaled. Avoid breathing dust, vapor or spray mist. Remove contaminated clothing and wash before reuse. Causes moderate eye injury (irritation). Avoid contact with eyes or clothing. Wash thoroughly with soap and water after handling. Avoid contact with skin or clothing. Wash thoroughly with soap and water after handling. **Users are required to wear long-sleeved shirts and long pants or equivalent, chemical-resistant gloves, and boots (waterproofed). In addition, persons involved in mixing/loading operations are required to use chemical-resistant rubber or neoprene gloves and a face shield or goggles.**

#### ENVIRONMENTAL HAZARDS

Atrazine leaches readily and accepted label rates have been found to result in contamination of water supplies by way of groundwater. Therefore, users are advised to avoid use of Atrazine in well drained soils, particularly in areas having high groundwater tables. This pesticide is toxic to aquatic invertebrates. Do not apply directly to water or wetlands. Runoff and drift from treated areas may be hazardous to aquatic organisms in neighboring areas. Do not contaminate water by cleaning of equipment or disposal of wastes.

Ground water contamination may be reduced by diking and flooring of permanent liquid bulk storage sites with an impermeable material.

This product may not be mixed/loaded, or used within 50 feet of all wells including abandoned wells, drainage wells, and sink holes. This product may not be mixed or loaded within 50 feet of intermittent streams and rivers, natural or impounded lakes and reservoirs. This product may not be applied aerially or by ground within 66 feet of the points where field surface water runoff enters perennial or intermittent streams and rivers or within 200 feet around natural or impounded lakes and reservoirs. If this product is applied to highly erodible land, the 66 foot buffer or set-back from runoff points must be planted to crop or seeded with grass or other suitable crop.

#### DIRECTIONS FOR USE

It is a violation of Federal law to use this product in a manner inconsistent with its labeling.

#### CHEMIGATION PROHIBITION

Do not apply this product through any type of irrigation system.

#### WORKER PROTECTION STATEMENTS

Users are required to wear long sleeve shirts and long pants or equivalent, chemical resistant gloves, and boots (waterproofed). In addition, persons involved in mixing/loading operations are required to use chemical resistant rubber or neoprene gloves and a face shield or goggles.

#### RE-ENTRY STATEMENTS

Do not apply this product in such a manner as to directly or through drift expose workers or other persons. The area being treated must be vacated by unprotected persons. Do not enter treated areas without protective clothing until sprays have dried. Because certain states may require more restrictive reentry intervals for various crops treated with this product, consult your State Department of Agriculture for further information.

#### STORAGE AND DISPOSAL

Do not contaminate water, food or feed by storage or disposal.

STORAGE: Store Atrazine 80W in a dry place.

PESTICIDE DISPOSAL: Wastes resulting from the use of this product may be disposed of on site or at an approved waste disposal facility.

CONTAINER DISPOSAL: Completely empty bag into application equipment. Then, dispose of empty bag in a sanitary landfill or by incineration, or, if allowed by State and local authorities, by burning. If burned, stay out of smoke.

#### GENERAL INFORMATION

Atrazine 80W Herbicide will control most annual broadleaf and grass weeds in corn, sugarcane, and certain other crops. It is also effective for control of most annual and many perennial broadleaf and grass weeds in noncrop areas and industrial sites. Atrazine 80W may be applied before or after weeds emerge. In each case where a range of rates is given, the lower rate should be used on light soils low in organic matter; the higher rate should be used on heavy soils and soils high in organic matter. Since Atrazine 80W acts mainly through root absorption, its effectiveness depends on rainfall or irrigation to move it into the root zone. Should weeds develop, a shallow cultivation or rotary hoeing will generally result in better weed control. Atrazine 80W is a wettable powder that should be mixed with water and applied as a spray. Make a

slurry by adding Atrazine 80W to water. Pour the slurry into the spray tank during or after filling. Sufficient hydraulic (jet) or mechanical agitation must be provided during mixing and application to keep the material in suspension. Wash sprayer thoroughly after use. Atrazine 80W is noncorrosive to equipment and metal surfaces, non-flammable, and has low electrical conductivity. Care should be taken to avoid using Atrazine 80W where desirable trees, shrubs, or plants might be injured.

#### GROUND APPLICATION

For uniform distribution in broadcast application, TeeJet 8003 or 8004 fan type or similar nozzles with openings of equal or greater size should be used. For band applications, use TeeJet 8003-E or 8004-E or similar type nozzles. Screens in nozzles as well as those in suction and in-line strainers should be no finer than 50-mesh size. A suitable pump with capacity to deliver 10-12 gpm should be used and operating pressure should be 35-40 psi. Use 20-40 gallons of water per acre to assure even coverage unless otherwise specified.

#### AERIAL APPLICATION

Use only where broadcast applications are specified. Apply a minimum of 1 gallon of water for each 1 to 1 1/2 pounds of Atrazine 80W to be applied per acre.

#### CORN

One application will control most annual broadleaf and grass weeds such as barnyardgrass, witchgrass (*Panicum capillare*), yellow foxtail, green foxtail, wild oats, large (hairy) crabgrass, giant foxtail, velvetleaf, morningglory, lambsquarters, pigweed, ragweed, nightshade, purslane, and mustard. Atrazine 80W may be applied either before planting, at planting, or after planting using 2 1/2 per acre as indicated below. For preplant and pre-emergence applications, nitrogen solutions or complete liquid fertilizers may replace all or part of the water as a carrier for Atrazine 80W. Do not apply after corn has emerged, as there is danger of liquid fertilizers causing crop injury.

#### PREPLANT

Broadcast in the spring after plowing at the rate indicated in the table below. Application may be made before, during, or after final seedbed preparation. If soil is tilled or worked after application, avoid deep incorporation of Atrazine 80W. Best results have been obtained when Atrazine 80W is applied within 2 weeks prior to planting.

#### PRE-EMERGENCE

Apply during or shortly after planting prior to weed emergence at

the rate indicated in the table below.

For soil applications prior to crop emergence (i.e., early preplant, preplant incorporated, preplant surface, at planting or preemergence) the following applies:

a) On highly erodible soils, as defined by the Soil Conservation Service (SCS), if conservation tillage is utilized (>30% plant residue), the maximum rate is 2 pounds a.i./acre (equivalent to 2.5 lbs of 80W). If plant residue is <30%, the maximum rate is 1.6 pounds a.i./acre (equivalent to 2.0 lbs of 80W).

b) On soils not highly erodible, the maximum rate is 2 pounds a.i./acre (equivalent to 2.5 lbs of 80W).

#### POST-EMERGENCE

Postemergence application to corn (and sorghum) must be made before corn and sorghum reaches 12 inches in height.

NOTE: For band application, reduce the broadcast rate of Atrazine 80W in proportion to the area treated.

For postemergence applications, if there has been no previous soil application to that crop, the maximum rate is 2 pounds a.i./acre. If there has been a previous soil application to that crop, do not exceed a total of 2.5 pounds a.i./acre per calendar year.

#### RATE PER ACRE OF ATRAZINE 80W

	Broadcast in 20 to 40 gals water per acre	20-inch band* in 10 to 20 gals water per acre	13-inch band* in 7 to 14 gals water per acre
<b>Soil Texture</b>			
<b>LIGHT SOILS</b>			
Sands, loamy sands and sandy loams	2 lbs.	1 lbs.	10 1/2 oz.
<b>MEDIUM SOILS</b>			
Silt and clay loams that are low in organic matter	2 1/4 lbs.	1 1/8 lbs.	12 oz.
<b>HEAVY SOILS</b>			
Silt and clay loams with medium to high organic matter and clays	2 lbs to 2 1/2 lbs.	1 1/4 lbs.	13 oz.

(including the dark prairie soils of the Corn Belt)

Peats, mucks, and high organic clays (Apply post-emergence only)	2 1/2 lbs.	1 1/4 lbs.	13 oz.
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\*Based on 40-inch row spacing. For other band or row widths, adjust the rate in proportion to the area actually treated. LAYBY TREATMENT Broadcast 1 1/4 to 2 1/2 pounds per acre in 20 to 40 gallons of water or sufficient nitrogen solution before weeds are 1 1/2 inches high. Apply before corn reaches 12 inches high. When nitrogen solutions are used direct the spray to the lower 3 to 4 inches of corn stalks to avoid corn foliage injury. Agitation in the spray tank during application is essential.

POST-EMERGENCE WEED CONTROL WITH ATRAZINE AND EMULSIFIABLE OIL IN WATER

The addition of oil to Atrazine in water sprays may speed the activity of Atrazine and provide quicker kill of weeds. However, under certain conditions the use of oil may seriously damage corn. To minimize the possibility of damage to corn, follow the directions, procedures, and precautions given below.

GROUND APPLICATION

Broadcast 2 1/2 pounds of Atrazine 80W and 1 gallon of emulsifiable oil\* in 20 to 40 gallons of water per acre after emergence but before weeds reach 1 1/2 inches in height. \*For combining with Atrazine 80W use a crop oil designated for use with Atrazine 80W containing at least 1 percent suitable emulsifier. Several oils of this type are on the market. Oils contaminated with water or other materials can cause compatibility problems and/or crop injury.

PROCEDURES

1. Thoroughly clean sprayer prior to use. Do not use sprayer contaminated with 2,4-D or other materials as corn damage or sprayer clogging may result.
2. In a separate container, make a thin slurry of Atrazine in water, thoroughly wetting the Atrazine.
3. Fill the spray tank with water, allowing for the addition of the Atrazine.

4. With the agitation system in operation, add the Atrazine slurry.
5. Add the emulsifiable oil last.
6. Empty the tank as completely as possible before refilling to prevent a buildup of oil in the tank. Keep the agitation system in operation to avoid a separation of the oil from the water in the spray mixture still remaining in the tank.
7. If an oil film starts to build up in the tank, drain the tank and clean out with a strong detergent solution or solvent.
8. Clean the sprayer thoroughly immediately after use by flushing the system with water containing a detergent.

**NOTE:**

1. Do not use oil in Atrazine sprays when corn is under stress from prolonged cold, wet weather, poor fertility, or other factors or when corn is wet and succulent from recent rainfall as crop injury may occur.
2. Do not use oil in sprays when treating inbred lines or any breeding stock as injury may occur.
3. Adding other insecticides, herbicides, liquid fertilizers, or other materials is not recommended with Atrazine and emulsifiable oil in water because they may cause compatibility problems or crop injury.
4. Store and handle emulsifiable oil carefully. Oil contaminated with even a small amount of water may not emulsify properly when added to the tank.
5. Do not make more than one application of Atrazine and emulsifiable oil in water per season.

**NORTHERN NUTGRASS OR YELLOW NUTSEDGE (*Cyperus esculentus*) CONTROL:** Broadcast 2 1/2 pounds per acre preplant, pre-emergence, or post-emergence before nutgrass is more than 1 1/2 inches high. If applied before nutgrass begins growth, cultivate within 2 to 3 weeks. If applied after nutgrass has emerged, cultivate within 10 to 14 days.

**QUACKGRASS CONTROL ON LAND GOING INTO CORN PRODUCTION**

**SPLIT APPLICATION:** Broadcast 1 1/4 pounds per acre in the spring and plow 1 to 3 weeks later. Broadcast a second application at the rate of 1 1/4 pounds per acre in the spring before, during, or after planting but before weeds are 1 1/2 inches high.

**SINGLE APPLICATION:** Broadcast 2.5 pounds. Plow 1 to 3 weeks after application.

**NOTE:** Applications for quackgrass suppression in corn (and sorghum) are restricted to a spring application only. No fall applications are permitted.

**PRECAUTIONS:**

1. Do not apply more than 2 1/2 pounds of Atrazine 80W to corn any one year.

2. Land treated with Atrazine should not be planted to any crop except corn until the following year or injury may occur.
3. Following harvest of a treated crop, plow (moldboard or disk plow) and thoroughly till the soil in the spring to minimize possible injury to rotational spring-seeded crops, regardless of the rate used.
4. If Atrazine is applied after June 10, do not rotate with crops other than corn or sorghum the next year or injury may occur.
5. In the High Plains and intermountain areas of the West where rainfall is sparse and erratic or where irrigation is required, use Atrazine to control weeds in corn only when corn is to follow corn or a crop of untreated corn or sorghum is to precede other rotational crops.
6. In western Minnesota and eastern parts of the Dakotas, Nebraska and Kansas, corn treated with Atrazine should not be followed with soybeans if the broadcast rate applied was more than 2 1/2 pounds per acre (or comparable rate in a band) or injury may occur.
7. Do not plant sugar beets, tobacco, vegetables (including dry beans), spring-seeded small grains, or small seeded legumes the year following Atrazine application or injury may occur.
8. Do not graze treated area or feed treated forage to livestock for 21 days following application.

#### SUGARCANE

For control of most non-rhizomatous weeds, such as crabgrass, junglerice, wiregrass, foxtail, amaranths, Flora's paintbrush, fireweed and similar plants: Broadcast 2 1/2 to 3 pounds per acre in 20 to 50 gallons of water for adequate coverage of the soil surface at time of planting or ratooning, but before the cane emerges. One additional application may be made over the cane as it emerges, and two additional applications may be made interline after emergence, as a directed spray. Do not use more than 3 pounds per acre per year.

FOR CONTROL OF EMERGED PELLITORY WEED (artillery-weed) (Florida only): Apply 1/2 to 3/4 pounds per acre in at least 40 gallons of water per acre as a directed spray. Add 2 quarts of surfactant for each 50 gallons of spray and be sure weed foliage is thoroughly covered.

#### PRECAUTIONS:

1. Do not apply Atrazine after "close-in".
2. Do not apply more than 12 1/2 lbs. of Atrazine to any one crop of cane.

TURF GRASSES FOR SOD PROTECTION (St. Augustine, Centipede, and Zoysia Grass) Broadcast 2 1/2 to 3 pounds per acre according to soil type as indicated below. Apply in 20 to 40 gallons of water per acre for thorough coverage.

Muck or peat - 5 pounds - Old beds: within 2 days after lifting of



sod; New beds: 3-4 days after sprigging or plugging;  
Sandy soils - 2 1/2 pounds - Old beds: within 2 days after lifting  
of sod New beds: 7-10 days after sprigging or plugging Apply  
additional 2 1/2 pounds on muck or peat, or 1 1/4 pounds on sandy  
soils, if weed growth recurs.

**PRECAUTIONS:**

1. Do not apply within 30 days of cutting or lifting.
2. Do not apply Atrazine in combination with surfactants or other spray additives, as these combinations may cause injury.
3. Do not use north of North Carolina.

**NOTE:** Where there are state/local requirements regarding atrazine use (including lower maximum rates and/or higher set-backs) which are different from the label, the more restrictive/protective requirements apply.

**CONDITIONS OF SALE**

All statements concerning the use of this product apply only when used as directed.

THE MANUFACTURER MAKES NO WARRANTIES, EXPRESSED OR IMPLIED, CONCERNING THIS PRODUCT OR ITS USE, WHICH EXTEND BEYOND THE DESCRIPTION ON THE LABEL.

Read all directions carefully.