RECOMMENDATION:

The following studies are required in order to support toxicity requirements for registration:

- 5-week study for formation
- Pathology
- Reproduction
- Teratology
- Sensitization
- Metabolism
- Toxicokinetics

See below for toxicological data.

Acute Oral (Rat)

LD₅₀: 1.95 g/kg
Toxic signs: Excessive salivation, diarrhea, prostration, lacrimation, hypodermatomyia
Comments: 5 dosage levels were used with 10 animals of mixed sex per dosage level. Mortality ranged from 0-100%.

Acute Dermal (Rabbit)

LD₅₀: >169 g/kg
Toxic signs: Slight dermal irritation at 24 hrs.
Comments: A single dosage level was used, tested on 4 animals. One death occurred which was probably unrelated to treatment. Dermal toxicity has been defined as unnecessary to apply >5 g/kg.

Acute Inhalation (Rat)

LC₅₀: >7.3 mg/l
Toxic signs: Epistaxis, tachycardia, nasal mucous discharge - no rats died over 24 hr period
Comments: Autopsy: lungs, larynx, trachea, tracheal cartilage, trachea and bronchi, trachea and bronchi, trachea and bronchi, trachea and bronchi, trachea and bronchi, trachea and bronchi, trachea and bronchi, trachea and bronchi, trachea and bronchi.

Primary Eye Irritation (Rabbit) Draize score: 1
Comments: 20 mg/kg instilled in 3/6 animals causing 75% decrease in conjunctivae in 4/6 animals, 75% decrease in conjunctivae in 5/6 animals, no deaths occurred.

Primary Skin Irritation (Rabbit) Draize score: 0.09/0.80
Comments:

Other Studies:

- Label must be upgraded to conform to S-768 Envelope due to eye irritation (as well as addition of residues, aquatic life toxicity).

Note: In accordance with the Oct 20, 1976 memorandum on registration action on Chemically Potentially Containing Methamidophos, any further registration action on this product should be suspended until further notice.
Flowable Atrazine controls most annual broadleaf and grass weeds in corn and sorghum.

Apply at the rates given under each crop before or after weeds emerge. Use lower rates on light soils and low organic matter soils. Use higher rates on heavier soils and high organic matter soils. Atrazine acts mainly through root absorption so rainfall or irrigation is needed to move it into the root zone. Should weeds develop, a shallow cultivation or rotary hoeing will generally result in better weed control.

For combining with Atrazine, use a crop oil designated for use with Atrazine containing at least 15% suitable emulsifier. Oils contaminate with water or other materials can cause compatibility problems and/or crop injury.

Equipment Procedures for Atrazine and Emulsifiable Oil:
1. Thoroughly clean sprayer prior to use. Do not use sprayer contaminated with 2,4-D or other materials as crop damage or sprayer clogging may result.
2. Fill the spray tank with water, allowing for the addition of Atrazine.
3. With the agitation system in operation, add the Atrazine.
4. Add the emulsifiable oil last. 5. 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.
6. If an oil film starts to build up in the tank, drain the tank and clean out with a strong detergent solution or solvent.
7. 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 or sorghum is under stress from prolonged cold, wet weather, poor fertility, or other factors or when corn or sorghum is wet and succulent from recent rain as crop injury may occur. 2. Do not use oils in sprays when treating inbred lines or any breeding stock at injury may occur. 3. Adding of insecticides, herbicides, liquid fertilizers, or other materials is not recommended because they may cause compatibility problems or crop injury. 4. Store and handle emulsifiable oil carefully. Oil containing 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. 6. All return lines to the tank must discharge below liquid level.
Inhalation or spray mist: Avoid contact with skin, eyes, or clothing. In case of contact, flush with plenty of water. For eyes - Get medical attention.

Keep this product away from domestic animals and foodstuffs.

Keep out of lakes, streams, or ponds. Do not apply where runoff is likely to occur. Do not apply when weather conditions favor drift from treated areas. Do not contaminate water by cleaning or disposal of wastes.

NON-FIAMEABLE

Directions For Use - Read

General Classification

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

STORAGE AND DISPOSAL - Do not contaminate water, food or feed by storage or disposal. Open dumping is prohibited. Do not reuse empty container. Pesticide, spray mixture or rinsate that cannot be used or chemically reprocessed should be disposed of in a landfill approved for pesticides or buried in a safe place away from water supply. Triple rinse (or equivalent) and dispose in an incinerator or landfill approved for pesticide containers, or bury in a safe place.

APPLICATION PROCEDURES - Read

Flowable Atrazine, a liquid formulation, should be mixed with water or liquid fertilizer and applied as a spray. Pour Flowable Atrazine into the tank during or after filling. Hydraulic (jet) or mechanical agitation is recommended during mixing and application to keep the material in suspension. All return lines that discharge below liquid level and agitation should not be so sized as to cause air bubbles to form in the liquid. Wash sprayer thoroughly after grounding. Apply Flowable Atrazine in 10-40 gallons of water per acre for ground applications unless otherwise specified. Use TeeJet 8002, 8003 or 80 fan type or other appropriate nozzles with equal or greater size openings for cast applications. Use TeeJet 8002-E, 8003-E or 8004-E-R on nozzles for band applications. Screens in nozzles and in suction end in-line strainers should be no finer than 50-mesh. Use a pump with capacity sufficient to maintain 35 psi operating pressure.

AERIAL APPLICATIONS: Use only when broadcast applications are specified. Apply a minimum of 1 gallon of water for each 2 pints of Flowable Atrazine to be applied per acre. Do not apply when uniform coverage cannot be obtained or where excessive drift may occur. Avoid application directly to animals or humans. Flag or relocate should avoid application of spray mist or droplets with skin and wash thoroughly before eating and at the end of each day’s operation.

Precautions: 1.) Heavy rains immediately following application tend to reduce effectiveness concentrations of herbicide in seed furrows, resulting in possible crop damage. Applications to furrow-planted corn should not be made until furrows are leveled (plowed-in). Deep planter bars or seed furrows should be leveled before application. 2.) Application made to sorghum growing under stress caused by minor element deficiency or to sorghum growing on highly calcareous soils can result in crop injury.

3.) Do not plant any rotational crops other than those specified in the Suggested For Rotational Crops section for 18 months following application. 4.) Do not graze or feed forage from treated areas for 21 days following application. 5.) Following harvest of a treated crop, plow (moldboard or disk) and thoroughly till the soil in fall or spring to minimize possible injury to rotational spring-sown crops, regardless of the rate used.

Suggestions For Rotational Crops:

1.) Sorghum or corn may be planted the year following treatment. 2.) All other rotational crops may be planted 18 months after application. 3.) When the broadcast rate used does not exceed 25 lbs. per acre fall wheat may be planted 15 months after application.

The use of this product being beyond the control of the manufacturer, no guarantee, expressed or implied, is made as to the effects of such or the results to be obtained if not used in accordance with directions or established safe practices. The buyer must assume all responsibility, including injury and damage resulting from its misuse as such or in combination with other pest-
Application will control most annual broadleaf and grass weeds such as bermudagrass, witchgrass (Panicum repilare), yellow foxtail, green foxtail, wild or large (hair) crabgrass, wild foxtail, velvetleaf, morningglory, lambsquarters, pigweed, ragweed, nightshade, purslane and mustard.

Flowable atrazine may be applied either before planting, at planting, or after planting at the rate indicated below. For preplant and pre-emergence application, nitrogen solutions or complete liquid fertilizers may replace all or part of water as a carrier of Flowable Atrazine. Do not apply after corn has emerged there is danger of liquid fertilizers causing crop injury.

Preplant:
Broadcast in the spring after plowing at the rate indicated below. Apply before sowing, or after final seedbed preparation. If soil is tilled or worked after application, avoid deep incorporation of Flowable Atrazine. Best results have been obtained when Atrazine is applied within two weeks prior to planting.

Pre-emergence:
Apply during or shortly after planting prior to weed emergence at the rate in below.

Post-emergence:
Apply before weeds exceed 1½ inches in height at the rate indicated below.

<table>
<thead>
<tr>
<th>Rate per acre of Flowable Atrazine</th>
<th>Broadcast in 10-15 gals. of water / A</th>
<th>20-inch band in 5-20 gals. of water / A</th>
<th>13 inch band in 1-1½ gal. of water /</th>
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</thead>
<tbody>
<tr>
<td>Light soils:</td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>Sands, foamy sands and sandy clays</td>
<td>4 pints</td>
<td>2 pints</td>
<td>1½ pints</td>
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<tr>
<td>Medium soils:</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Silt and clay loams that are low in organic matter</td>
<td>4 3/4 pts</td>
<td>2½ pts</td>
<td>1½ pints</td>
</tr>
<tr>
<td>Heavy Soils:</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Silt and clay loams with medium to high organic matter and clays</td>
<td>6 pts.</td>
<td>3 pts.</td>
<td>2 pts.</td>
</tr>
<tr>
<td>4 acres, mucks, and high organic clays (apply post-emergence only)</td>
<td>6 pts.</td>
<td>3 pts.</td>
<td>2 pts.</td>
</tr>
</tbody>
</table>

Based on 40-inch row spacing. For other band or row widths, adjust the rate in proportion to the area actually treated.

Broadleaf weeds: northern nutgrass or yellow nutsedge (Cyperus esculentus) Control: Broadcast per acre preplant, pre-emergence, or post-emergence before nutgrass is ½ inch high. If applied before nutgrass begins growth, cultivate within 2-4 days after nutgrass has emerged, cultivate within 10-14 days.

Backgrass Control on Land Going Into Corn Production:
Split Application: Broadcast ½ pts. per acre in the fall or spring and plow 1 week later. Broadcast a second application at the rate of ½ pts. per acre in spring before, during, or after planting but before weeds are 1½ inches high.

Single Application: Broadcast 6-8 pts. per acre in the fall or spring. Plow 1 week later.

Post-emergence Weed Control With Atrazine Plus Emulsifiable Oil In Water:
Broadcast Application: Broadcast 4 pts. of Atrazine and ½ gal. of emulsifiable oil 0-15 gals. of water per acre after emergence but before weeds reach 1½ inches high.

Serial Application: Broadcast 4 pts. of Atrazine and ½ gal. of emulsifiable oil no less than 5 gals. of water per acre after weed emergence but before weeds reach 1½ inches high.

Precautions:
1.) Do not apply more than 8 pts. of Flowable Atrazine to corn in more than one application.
2.) Land treated with Atrazine should not be planted to any crop except the following year or injury may occur. 3.) Following harvest of a treatment crop, plow (moldboard or disk) and thoroughly till the soil in fall or spring to minimize possible injury to the rotational cropping-seeded crops, regardless of the rate used. 4.) If Atrazine is applied after June 15, do not rotate with corn or sorghum the next year or injury may occur. 5.) If Flowable Atrazine is used at higher broadcast rates than 6 pts. per acre (or comparable rates in serial application), a crop of untreated corn or sorghum should precede the next rotational crop. 6.) In the High Plains and Intermountain areas of the West where rainfall is sparse and erratic or where irrigation is required, use Atrazine control seeds in corn only when corn is to follow corn or a crop of untreated sorghum is to precede other rotational crops. 7.) In western Minnesota and parts of Dakotas, Nebraska and Kansas, corn treated with Atrazine should be interseeded with wild oats if the broadcast rate applied was more than ½ pts. per acre (or comparable rate in a band) or injury may occur. 8.) Do not plant sugarcane, tobacco, vegetables (including dry beans), spring-seeded small grains, fall-seeded legumes and grasses the year following Atrazine application or injury may occur. 9.) Do not graze sorghum and Sorghum-Sudan Hybrids (Grain and Forage).