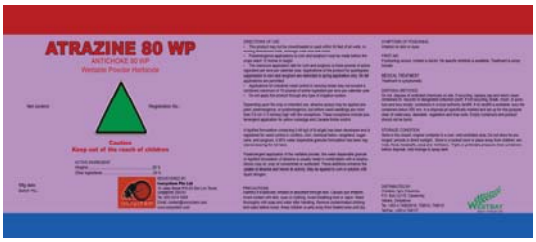
READ THE ENTIRE LABEL BEFORE USING THIS PRODUCT.

USE ONLY IN ACCORDANCE WITH INSTRUCTIONS.

KEEP OUT OF REACH OF CHILDREN

ANTICHOKE 80 WP



INGREDIENTS

Atrazine.....…….....80%
Other ingredients ……..…….....20%

ANTICHOKE 80 WP is a triazine herbicide. It contains as its active ingredient, Atrazine.

Atrazine is a widely used selective herbicide for control of broadleaf and grassy weeds in corn, sorghum, sugarcane, macadamia orchards, and turf grass sod. It is used also in some areas for selective weed control in conifer reforestation and Christmas tree plantations as well as for nonselective control of vegetation in chemical fallow. Atrazine also is used as a nonselective herbicide for vegetation control in noncrop land. Sugar-beets, tobacco, oats, and many vegetable crops are very sensitive to atrazine

Trade Names Of Other Firms**:** Trade names for products containing cyfluthrin include Baythroid, Baythroid H, Attatox, Contur, Laser, Responsar, Solfac, Tempo and Tempo H. Combination products include Baythroid TM (+ methamidophos) and Aztec (+ tebupirimphos) (69).

What is ANTICHOKE 80 WP and how does it work?

ANTICHOKE 80 WP is a triazine herbicide.

Key Benefits of ANTICHOKE 80 WP:

1. Quick knockdown effect.
2. Highly effective against broadleaf weeds

PRECAUTIONS

Harmful if swallowed, inhaled or absorbed through skin. Causes moderate eye irritation. Avoid contact with skin, eyes or clothing. Avoid breathing spray mist. Wash thoroughly with soap and water after handling and before eating, drinking or using tobacco. Remove contaminated clothing and wash before reuse. Keep children or pets away from treated area until dry.

SYMPTOMS OF POISONING

Irritation on skin or eyes.

MEDICAL TREATMENT

No specific antidote is available. Treatment is symptomatic.

FIRST AID

If on skin, remove contaminated clothes. Rinse and then rinse skin immediately with plenty of water and soap for 15-20 minutes. Call a poison control centre or doctor for treatment advice.
If inhaled, move person for fresh air. If person is not breathing, call for an ambulance, then give artificial respiration, preferably mouth-to-mouth if possible. Call a poison control centre or doctor for further treatment advice.
If in eyes, first hold eye open and rinse with plenty of water for 15-20 minutes (remove contact lenses if easily possible). Call poison control center or doctor for treatment advice.
If ingested, call a poison control centre or doctor immediately for treatment advice. Have person sip a glass of water if able to swallow. Do NOT induce vomiting unless told to do so by poison control center or doctor. Do not give anything to an unconscious person.

DIRECTIONS OF USE

- Users must wear long-sleeve shirts and long pants (or equivalent), chemical resistant gloves, and water-proofed boots. In addition, persons involved in mixing and loading operations are required to use chemical resistant rubber or neoprene gloves and a face shield or goggles.
- Groundwater 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.
- Postemergence applications to corn and sorghum must be made before the crops reach 12 inches in height.

- The maximum application rate for corn and sorghum is three pounds of active ingredient per acre per calendar year. Applications of the product for quackgrass suppression in corn and sorghum are restricted to spring application only. No fall applications are permitted.
- Applications for industrial weed control in noncrop areas may not exceed a combined maximum of 10 pounds of active ingredient per acre per calendar year.
- Do not apply this product through any type of irrigation system.

Depending upon the crop or intended use, atrazine sprays may be applied preplant, preemergence, or postemergence, but before weed seedlings are more than 3.8 cm (1.5 inches) high with few exceptions. These exceptions include postemergent application for yellow nutsedge and Canada thistle control.

Preemergence use is generally the preferred method of application where it can be used. Under dry conditions, a shallow incorporation may increase the degree of weed control. A single lay-by cultivation is sometimes useful to prevent relatively tolerant late season grasses from developing.

Aerial applications have been very successful, especially when wet weather prevents the use of ground equipment and in cases where rough terrain such as in conifer reforestation makes ground application impractical.

A liquified formulation containing 0.48 kg/l (4 lb ai/gal) has been developed and is registered for weed control in conifers, corn, chemical fallow, rangeland, sugarcane, and sorghum. A 90% water dispersible granular formulation has been registered bearing the full label.

Postemergent application of the wettable powder, the water dispersible granule or liquified formulation of atrazine is usually made in combination with a nonphytotoxic crop oil, crop oil concentrate or surfactant. These additions enhance the uptake of atrazine and hence its activity. May be applied to corn in solution with liquid nitrogen.

DISPOSAL METHODS

Do not dispose of undiluted chemicals on site. If recycling, replace cap and return clean containers to recycler or designated collection point. If not recycling, break, crush, or puncture and bury empty containers in a local authority landfill. If no landfill is available, bury the containers below 500 mm in a disposal pit specifically marked and set up for this purpose clear of waterways, desirable vegetation and tree roots. Empty containers and product should not be burnt.

STORAGE CONDITION

Store in the closed, original container in a cool, well-ventilated area. Do not store for prolonged periods in direct sunlight. Store in a locked room or place away from children, animals, flood, feedstuffs, seed and fertilizers. Triple or preferably pressure rinse containers before disposal. Add rinsing to spray tank.

For More Details including effects on environment email contact@ivorychem.com with Subject “ANTICHOKE 80 WP DETAILS”

More Details:

TOXICOLOGICAL EFFECTS

- **Acute toxicity:** Atrazine is slightly to moderately toxic to humans and other animals. It can be absorbed orally, dermally, and by inhalation. Symptoms of poisoning include abdominal pain, diarrhea and vomiting, eye irritation, irritation of mucous membranes, and skin reactions [3]. At very high doses, rats show excitation followed by depression, slowed breathing, incoordination, muscle spasms, and hypothermia [3]. After consuming a large oral dose, rats exhibit muscular weakness, hypoactivity, breathing difficulty, prostration, convulsions, and death [16]. Atrazine is a mild skin irritant. Rashes associated with exposure have been reported. The oral LD50 for atrazine is 3090 mg/kg in rats, 1750 mg/kg in mice, 750 mg/kg in rabbits, and 1000 mg/kg in hamsters. The dermal LD50 in rabbits is 7500 mg/kg and greater than 3000 mg/kg in rats [15,16]. The 1-hour inhalation LC50 is greater than 0.7 mg/L in rats. The 4-hour inhalation LC50 is 5.2 mg/L in rats [3,6].
- **Chronic toxicity:** Some 40% of rats receiving oral doses of 20 mg/kg/day for 6 months died with signs of respiratory distress and paralysis of the limbs. Structural and chemical changes in the brain, heart, liver, lungs, kidney, ovaries, and endocrine organs were observed [3,16]. Rats fed 5 or 25 mg/kg/day of atrazine for 6 months exhibited growth retardation. In a 2-year study with dogs, 7.5 mg/kg/day caused decreased food

intake and increased heart and liver weights. At 75 mg/kg/day, there were decreases in food intake and body weight gain, increased adrenal weight, lowered blood cell counts, and occasional tremors or stiffness in the rear limbs [3].

- **Reproductive effects:** Dietary doses of atrazine given to rats on days 3, 6 and 9 of gestation up to about 50 mg/kg/day caused no adverse reproductive effects [3].
- **Teratogenic effects:** Atrazine does not appear to be teratogenic. In mice, atrazine did not cause abnormalities in fetuses whose dams were given doses of 46.4 mg/kg/day during days 6 through 14 of gestation [3].
- **Mutagenic effects:** The weight of evidence from more than 50 studies indicates that atrazine is not mutagenic [3].
- **Carcinogenic effects:** Atrazine did not cause tumors when mice were given oral doses of 21.5 mg/kg/day from age 1 to 4 weeks, followed by dietary doses of 82 mg/kg for an additional 17 months. However, mammary tumors were observed in rats after lifetime administration of high doses of atrazine [3]. Thus, available data regarding atrazine's carcinogenic potential are inconclusive.
- **Organ toxicity:** Lethal doses of atrazine in test animals have caused congestion and/or hemorrhaging to the lungs, kidneys, liver, spleen, brain, and heart [3]. Long-term consumption of high levels of atrazine has caused tremors, changes in organ weights, and damage to the liver and heart [3].
- **Fate in humans and animals:** Atrazine is readily absorbed through the gastrointestinal tract. When a single dose of 0.53 mg atrazine was administered to rats by gavage, 20% of the dose was excreted in the feces within 72 hours. The other 80% was absorbed across the lining of the gastrointestinal tract into the bloodstream. After 72 hours, 65% was eliminated in the urine and 15% was retained in body tissues, mainly in the liver, kidneys, and lungs [3].

ECOLOGICAL EFFECTS

- **Effects on birds:** Atrazine is practically nontoxic to birds. The LD50 is greater than 2000 mg/kg in mallard ducks. At dietary doses of 5000 ppm, no effect was observed in bobwhite quail and ring-necked pheasants [15,16].
- **Effects on aquatic organisms:** Atrazine is slightly toxic to fish and other aquatic life. Atrazine has a low level of bioaccumulation in fish. In whitefish, atrazine accumulates in the brain, gall bladder, liver, and gut [16].
- **Effects on other organisms:** Atrazine is not toxic to bees [16].

ENVIRONMENTAL FATE

- **Breakdown in soil and groundwater:** Atrazine is highly persistent in soil. Chemical hydrolysis, followed by degradation by soil microorganisms, accounts for most of the breakdown of atrazine. Hydrolysis is rapid in acidic or basic environments, but is slower at neutral pHs. Addition of organic material increases the rate of hydrolysis. Atrazine can persist for longer than 1 year under dry or cold conditions [21]. Atrazine is moderately to highly mobile in soils with low clay or organic matter content. Because it does not adsorb strongly to soil particles and has a lengthy half-life (60 to >100 days), it has a high potential for groundwater contamination despite its moderate solubility in water [20]. Atrazine is the second most common pesticide found in private wells and in community wells [16]. Trace amounts have been found in drinking water samples and in groundwater samples in a number of states [23,21]. A 5-year survey of drinking water wells detected atrazine in an estimated 1.7% of community water systems and 0.7% of rural domestic wells nationwide. Levels detected in rural domestic wells sometimes exceeded the MCL [23]. The recently completed National Survey of Pesticides in Drinking Water found atrazine in nearly 1% of all of the wells tested [23].
- **Breakdown in water:** Atrazine is moderately soluble in water. Chemical hydrolysis, followed by biodegradation, may be the most important route of disappearance from aquatic environments. Hydrolysis is rapid under acidic or basic conditions, but is slower at neutral pHs. Atrazine is not expected to strongly adsorb to sediments. Bioconcentration and volatilization of atrazine are not environmentally important [21]. Atrazine has been detected in each of 146 water samples collected at 8 locations from the Mississippi, Ohio and Missouri Rivers

and their tributaries. For several weeks, 27% of these samples contained atrazine concentrations above the EPA's maximum contaminant level (MCL) [24].

- **Breakdown in vegetation:** Atrazine is absorbed by plants mainly through the roots, but also through the foliage. Once absorbed, it is translocated upward and accumulates in the growing tips and the new leaves of the plant. In susceptible plant species, atrazine inhibits photosynthesis. In tolerant plants, it is metabolized [6]. Most crops can be planted 1 year after application of atrazine. Atrazine increases the uptake of arsenic by treated plants [16].

PHYSICAL PROPERTIES AND GUIDELINES

Physical Properties:

- **Appearance:** Atrazine is a white, crystalline solid [6].
- **Chemical Name:** 2-chloro-4-ethylamine-6-isopropylamino-S-triazine [6]
- **CAS Number:** 1912-24-9
- **Molecular Weight:** 215.69
- **Water Solubility:** 28 mg/L @ 20 C [6]
- **Solubility in Other Solvents:** chloroform v.s.; diethyl ether v.s.; dimethyl sulfoxide v.s. [6]
- **Melting Point:** 176 C [6]
- **Vapor Pressure:** 0.04 mPa @ 20 C [6]
- **Partition Coefficient:** 2.3404 [6]
- **Adsorption Coefficient:** 100 [20]

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