Behaviour in surface water
In the presence of water, triclopyr is broken down quickly by sunlight and micro-organisms. Triclopyr ester rapidly hydrolyses to the acid with half dissipating in 1–2 days by photolysis.

Environmental toxicity

Triclopyr ester is slightly toxic to vertebrate and invertebrate aquatic organisms. It is highly toxic to some aquatic plants. It rapidly degrades in the environment to the acid. It is not toxic to earthworms, honey bees or other beneficial insects and has low toxicity the terrestrial vertebrates. Triclopyr acid has low toxicity to aquatic invertebrates and vertebrates and low toxicity to terrestrial vertebrates. It is not toxic to, earthworms, honeybees or terrestrial arthropods. It is highly toxic to some aquatic plants.

The ingredients in GARLON may damage aquatic plants if the product contaminates water bodies.

Garlon has a very low order of toxicity to wildlife such as birds and animals, and is not toxic to honey bees. If using an adjuvant and treating plants in flower check the adjuvant label or SDS for bee toxicity advice.

Triclopyr does not accumulate in aquatic or terrestrial food chains.

Poisonous plants
GARLON is not toxic to grazing livestock, however poisonous plants may become more palatable after spraying with herbicides and stock should be kept away from these plants until they have died down.

Burning treated vegetation
Triclopyr residues in plant tissue are destroyed when treated vegetation is burnt.

Human health and safety

Garlon has low toxicity if swallowed, and small amounts swallowed incidentally as a result of normal handling are not likely to cause injury. The product may cause eye and skin irritation. When the correct personal protection equipment is worn (see Safety Directions on the product label), accidental exposure to GARLON should not result in any harm to the user.

Triclopyr is not carcinogenic (does not increase tumours), is not mutagenic (does not damage genetic material) and is not teratogenic (does not harm the unborn).

Conclusion

The behaviour of Garlon in the environment and its effect on living organisms indicates no undue hazards when applied for control of weeds.

However, like all agricultural chemicals it should be applied in a responsible manner to minimise off-target drift of spray onto nearby sensitive crops and contamination of waterways.

Throughout Australia there are great variations in climate, soil type, vegetation, topography and land use. All of these have an effect on the behaviour of chemicals in the environment.

Any persons having questions on the possible effects of any Corteva Agriscience product should contact our customer service team, toll free on 1800 899 147.

Woody Weed Specialists™

Garlon® 600 Herbicide

Health and safety profile

Garlon® 600

HERBICIDE

CORTEVA™ agriscience

Garlon® 600 Herbicide is used in Australia to control a wide range of broadleaf weeds including blackberry, gorse, wattles, and eucalypts in pastures, as well as melons in stubble or fallow paddocks. Application can be made by boom, aircraft, CDA, gas gun, sprinkler sprayer or high volume equipment (hand gun). Cut stump and basal bark treatments are also utilised. Notably, pasture grasses are not affected by Garlon.

This brochure is a general guide on the toxicity and behaviour of Garlon in the environment when used for weed control. Detailed information on rates of application and directions for use are set out on the product label. The Woody Weed Control guide is another useful source of information.

Chemical characteristics

Garlon contains 600 g/litre of triclopyr present as the butoxyethyl ester. The ester in the formulation rapidly converts to the parent acid (triclopyr) once in soil, water, plants and animals so it is the properties of this chemical which is important in assessing health and environmental behaviour.

Triclopyr is a member of the pyridine carboxylic acid family of chemistry. This class of chemistry is known to possess auxin-like properties, where the herbicide binds to protein receptor sites that normally regulate plant processes.

Triclopyr is rapidly absorbed by the leaves stems and roots, moving systemically throughout the target plant in the xylem and phloem and accumulating in the meristematic tissue, where it deregulates growth metabolic pathways.

The disruption of these pathways causes deregulated plant growth and symptoms in susceptible plants such as thickened, curved and twisted shoots, stems and leaves, and cupping and crinkling of leaves.

Garlon at low rates will damage nearby sensitive plants and must be used responsibly to minimise off-target drift. No volatilisation during or after application is expected.

Environmental fate characteristics

Behaviour in soil
Triclopyr degrades fairly rapidly once applied to vegetation and any residues reaching the soil generally remain in the surface layer of the soil, where it is bound to organic matter while being degraded. Triclopyr is readily degraded by soil micro-organisms and sunlight.

Triclopyr has an average half-life in the soil of 30 days, hence it is moderately persistent and biologically active residues may remain for some time. The period of time is shortest in warm moist high organic matter, non-clay soils. Triclopyr has limited movement in high organic matter soil, but is more mobile in clay soils, however it is rarely found in ground water and then only at very low levels.

Movement in soil is dependent upon precipitation soil texture, and organic matter; leaching potential is greatest in sandy soils low in organic matter, however it typically remains in the top 30 cm of the soil.

Surface runoff potential
Triclopyr is rapidly absorbed into the sprayed vegetation and bound to organic matter in the surface layers of the soil. This characteristic along with rapid degradation means there is negligible potential for runoff to nearby lakes and streams, even when applied on steep slopes.

CORTEVA™
agriscience

For more information call toll free **1800 899 147** or visit us at **www.woodyweedspecialists.com.au**

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