

ECOPLUG®



Ecoplug® Max Safety to fish, amphibians and aquatic life.

Bayer are committed to minimising the environmental impact of herbicide treatments as well as maximising their effect on killing target weeds. The effectiveness of Roundup herbicide, and its favourable environmental characteristics, have combined to make it one of the most widely used and trusted herbicides in the world.

Glyphosate, the active ingredient in EcoPlug Max, controls weeds by blocking the plant's protein production system. It stops the production of an enzyme, which is present in most plants but not part of the metabolism of humans, animals, birds, fish, amphibians, reptiles or insects. If ingested it passes straight through the body and is not absorbed or accumulated. Glyphosate is not absorbed through the skin and contact with treated leaves does not lead to glyphosate entering the body. Glyphosate degrades readily in the environment and does not accumulate. When used according to approved uses, it has no negative effects on wildlife. The active ingredient has such a high safety profile that it is not even classified by the World Health Organisation in relation to toxicity from either oral ingestion or dermal absorption.

The design of the EcoPlug ensures there can be no direct exposure of the granules to amphibians, reptiles or fish. Sometimes there can be some regrowth of shoots after application with foliage that dies back after a number of weeks.

Glyphosate and water

Unlike most other herbicides, glyphosate quickly dissipates due to rapid absorption/binding to sediments in water and is degraded by naturally occurring microorganisms to carbon dioxide. Because of this rapid dissipation from surface waters, glyphosate is one of the few herbicides that is registered for direct application to aquatic weeds. EcoPlug Max is fully approved for use in aquatic situations or near water to control regrowth from cut stumps.

Fish

In practical terms EcoPlug Max can be used in aquatic areas in the presence of fish with no adverse effects. Glyphosate degrades readily in the environment and does not accumulate. Studies on fish and marine organisms confirm there is no bioaccumulation. Glyphosate reaching water either through drift or targeted aquatic spraying will be quickly bound to the sediment and degraded by micro-organisms in the sediment with a half-life of around 4 days.

Amphibians & Reptiles

Reptiles are not one of the test species which regulators require data on as part of the approvals process for pesticides so there is less published work on reptiles than some other parts of the animal kingdom. This is because amphibians are considered to be the most sensitive species in the grouping which includes reptiles and are hence usually used in eco-toxicity experiments and considered to represent the worst-case scenario for reptiles. Risk assessments using available data conclude amphibians (and thus reptiles) are not considered to be at risk from label use of EcoPlug Max.

When conducting a risk assessment for reptiles these additional facts relating to the risk of exposure should be taken into account.

- Reptiles eat mainly invertebrates like, slugs & insects and are not direct consumers of treated foliage as food.
- Sand Lizards spend most of their time hiding and are unlikely to directly intercept spray. Common lizards do bask in the sun but will usually hide on disturbance and slow-worms also spend most of the time underground or under cover and feed at night.
- Lizards have impenetrable scaly skin.

When conducting a risk assessment for Great Crested Newts these additional facts should be taken into account.

- Great Crested Newts are nocturnal so it is extremely unlikely that they would come into direct contact with the spray.
- The newts' diet is insect larvae, tadpoles and worms. They are not herbivorous and are therefore not likely to ingest any of foliage which maybe damaged by EcoPlug Max.
- Glyphosate is not absorbed through the skin and contact with treated leaves would not lead to glyphosate entering the body.

Considering the low risk of exposure and the safety of the formulation even to the most sensitive amphibian, there is a very, very, low risk of any adverse effects to fish, reptiles or amphibians from the label use of any glyphosate-containing product and they have been used on sensitive sites over the years with no reports of any adverse effects. The EcoPlug Max plug has been designed to ensure the risks of exposure are nil.

For more information visit: www.monsanto-ag.co.uk , email: technical.helpline.uk@monsanto.com or telephone the Roundup Helpline: 01954 717575.
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USE HERBICIDES SAFELY. ALWAYS READ THE LABEL AND PRODUCT INFORMATION BEFORE USE.