TOYOTO 240 EC
(oxyfluorfen 240 g/l ; EC)

TOYOTO 240 EC is a selective herbicide for the control of certain annual grass and broadleaf weeds in dormant apples, grapes, peaches, pears, plums, apricots, almonds, macadamia, duboisia, tobacco, coffee, pyrethrum, winter cereals, tropical/subtropical crops, brassicas, onions, Eucalyptus and Pinus spp. and other forestry trees, applied either to weed free soil or to seedling weeds up to the 4 to 6 true-leaf stage.

TOYOTO 240 EC applied to well prepared, weed free soil should not be disturbed or incorporated after application. Weed control for up to 3 months can be expected with high label rates, but spot treatment of escape weeds or perennial grasses may be necessary with knockdown herbicides.

When **TOYOTO 240 EC** is applied to seedling weeds at the 4 to 6 leaf stage, a non-ionic surfactant should be added at recommended rates to improve activity.

TOYOTO 240 EC can also be used at low rates as a "spike" to improve the weed spectrum of knockdown herbicides such as glyphosate and paraquat or diquat/paraquat mixtures.

Composition
TOYOTO 240 EC is an Emulsifiable Concentrate containing 240 g of oxyfluorfen/litre

Mode of action
TOYOTO 240 EC is is a light-dependent peroxidising herbicide (LDPH) used for pre- and post-emergence control of monocotyledonous and broad leaf weeds. LDPHs target a specific enzyme, protoporphyrinogen oxidase, in the haeme and chlorophyll biosynthetic pathway. Inhibiting protoporphyringen oxidase in plants leads to an accumulation of phototoxic haeme and chlorophyll precursors which, in the presence of light, produce activated oxygen species which rapidly disrupt cell membrane integrity. Plant leaves turn yellow then brown and die. Reddish-colored spotting on the leaf surface may appear shortly after application. Plants that do not die may be stunted for a week or so. Crop oils and other additives may increase plant injury.

By forming a chemical barrier on the soil surface, **TOYOTO 240 EC** affects plants at emergence. This barrier is formed with adequate spray coverage or irrigation following application, to promote dispersion of **TOYOTO 240 EC** over the soil surface. Because of the length of **TOYOTO 240 EC** soil half-life, this barrier may last up to three months. All plants attempting to emerge through the soil surface will be affected through contact. **TOYOTO 240 EC** also affects plants through direct contact of spray to exposed tissues. If the plant is able to recover from a partial injury to the contacted tissues, death may not occur.

Weeds controlled by TOYOTO 240 EC

PRE-EMERGENCE APPLICATION	EARLY POST-EMERGENCE (LESS THAN 4 TRUE LEAF)
Amsinckia (Amsinckia spp.) Barley Grass (Hordeum leporinum) Barnyard Grass (Echinochloa spp.) Blackberry Nightshade (Solanum nigrum) Bladder Ketmia (Hibiscus trionum) Burrgrass (Cenchrus australis) Caltrop (Tribulus terrestris) Capeweed (Arctotheca calendula) Chickweed (Stellaria media) Crowsfoot Grass (Eleusine indica) Deadnettle (Lamium amplexicaule) Fat Hen (Chenopodium album) Giant Pigweed (Triantherna portulacastrum) Liverseed Grass (Urochloa panicoides) Lovegrass (Eragrostis spp.) Pigeon Grass (Setaria spp.) Pigweed (Portulaca oleracea) Prickly Lettuce (Lactuca spp.) Red Natal Grass (Rhynchelytrum repens) Redshank (Amaranthus cruentus) Ryegrass (Lolium spp.) Sesbania Pea (Sesbania cannabina) Shepherd's Purse (Capsella bursa-pastoris) Smallflower Mallow (Malva parviflora) Soursob (Oxalis pes-caprae) Sowthistle (Sonchus oleraceus) Starburr (Acanthospermum hispidum) Stinkgrass (Eragrostis cilianensis) Summer Grass (Digitaria spp.) Thornapple (Datura stramonium) White Eye (Richardia brasiliensis) Wild Mustard (Sisymbrium spp.) Wild Radish (Raphanus raphanistrum) Wireweed (Polygonum aviculare)	Amsinckia (Amsinckia spp.) Bellvine (Ipomoea spp.) Capeweed (Arctotheca calendula) Common Cotula (Cotula australis) Crowsfoot Grass (Eleusine indica) Deadnettle (Lamium amplexicaule) Groundsel (Senecio vulgaris) Liverseed Grass (Urochloa panicoides) Pigweed (Portulaca oleracea) Potato Weed (Galinsoga parviflora) Redshank (Amaranthus cruentus) Shepherd's Purse (Capsella bursa-pastoris) Sowthistle (Sonchus oleraceus) Stinging Nettle (Urtica urens) Stinkgrass (Eragrostis cilianensis) Wild Radish (Raphanus raphanistrum)

Uses registered in Morocco

Main crops	Typical pests	Dosage l/ha	PHI (Days)
Onion	Annual grasses and broad leaved weeds	1.5	60

Direction for use

Preparation of the mixture :

When using **TOYOTO 240 EC** alone, fill the spray tank at least one-third full with clean water, add the recommended amount of **TOYOTO 240 EC** while the pump and agitator are running, then complete filling the spray tank. A non-ionic surfactant, if required by label directions, should be added near the end of the filling process to minimize foaming.

When tank mixing with glyphosate, Ensure thorough agitation when mixing, filling the spray tank and during application, irrespective of glyphosate formulations used. Follow recommended order and directions for tank mixing **TOYOTO 240 EC** and glyphosate. Use all spray mix immediately after preparation.
DO NOT tank mix **TOYOTO 240 EC** and glyphosate without agitation.
DO NOT allow mix to stand unagitated.
DO NOT store **TOYOTO 240 EC** and glyphosate tank mixes.
DO NOT mix other agrochemical products with **TOYOTO 240 EC** and Wipe-Out CT tank mixes.

Method of application :
Spray equipment should be calibrated carefully before use. **TOYOTO 240 EC** should be applied uniformly as a directed treatment to the base of tree and vine crops using flat fan or off-centre nozzles. Complete coverage of seedling weeds is required for maximum knockdown effect. Ensure both weed foliage and the soil surface are sprayed.
Water volume should be of 250 to 500 litres per hectare for bare soil or 100 to 1350 litres per hectare when seedling weeds (4 to 6 leaf stage) are treated. Use the higher volumes where weed density is high. Tank mixtures of 75 ml/ha of **TOYOTO 240 EC** with glyphosate herbicides should be applied in 30 to 200 litres spray volume per hectare. For maximum residual control, **TOYOTO 240 EC** should NOT be incorporated or disturbed after application.

Timing of application :
Onion
After sowing, before emergence or just after emergence of the weeds.
Residual Control
For optimum residual weed control, **TOYOTO 240 EC** should be applied to the soil surface prior to weed emergence after all other agricultural operations, such as mechanical cultivation and re-shaping of irrigation furrows, have been completed. The area should be left undisturbed during the time period for which weed control is desired. When applied to seedling weeds, they should be young and actively growing. Weed control for up to 3 months is expected with the label rate, but spot treatment, with knockdown herbicides, for escape weeds and perennial grasses may be necessary.
Post-emergence weed control
For optimum post-emergence weed control, **TOYOTO 240 EC** + glyphosate tank mixes should be applied to small seedling weeds up to 4 to 6 true leaf stage. Use of a non-ionic surfactant is recommended to improve activity. Weeds should be actively growing and free from environmental stress (drought, cold, insect attack, nutrient deficiency). Cultivation after treatment and prior to or at planting is beneficial for final fallow weed control.

Compatibility
TOYOTO 240 EC is compatible with many herbicides, especially glyphosate, paraquat, diquat, however it is advised to conduct a small test for every new mixture before using it at a larger scale.

Herbicide resistance warning

TOYOTO 240 EC is a member of the Diphenyl ether group of herbicides. The mode of action of **TOYOTO 240 EC** is to inhibit protoporphyrinogen oxidase. For weed resistance management **TOYOTO 240 EC** is a Group G Herbicide (HRAC). Some naturally occurring weed biotypes resistant to **TOYOTO 240 EC** and other Group G herbicides may exist through normal genetic variability in any weed population. The resistant weeds can eventually dominate the weed population if these herbicides are used repeatedly. These resistant weeds will not be controlled by **TOYOTO 240 EC** or other Group G herbicides. Since the occurrence of resistant weeds is difficult to detect prior to use, AAKO BV accepts no liability for any losses that may result from the failure of **TOYOTO 240 EC** to control resistant weeds.

Safety directions

- Keep out the reach of children.
- Keep away from food, drink and animal feeding stuffs.
- When using, do not eat, drink or smoke.
- Do not breathe spray.
- In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.
- After contact with skin, wash immediately with plenty of water.
- Wear suitable protective clothing, gloves and eye/face protection.
- Avoid release to the environment. Refer to special instruction/safety data sheets.

Toxicity

Mode of application	**Experimental animal**	**LD_{50} or LC_{50}**
Oral	Rat	LD_{50} 4599 mg/kg
Dermal	Rat	LD_{50} > 4000 mg/kg
Skin Irritation	Rabbit	Moderate irritant
Eye irritation	Rabbit	Severe eye irritant
Sensitisation	Guinea pig	Non sensitiser
Inhalation	Rat	LC_{50} ~ 5 mg/l air

According to the WHO classification, TOYOTO 240 EC belongs to class U : Unlikely to present a hazard in normal use.

First aid

In general: Remove the affected person from the danger zone to a well-ventilated room or to fresh air, and protect from chilling. Do not administer anything by oral route and do not try to make vomit, call a treatment center for poisoning cases or a doctor. Take the label where possible.

After Inhalation : Immediately remove to fresh air. Call a doctor immediately.

After eye contact: Rinse immediately and thoroughly with plenty of water during at least 10 to 15 minutes. Eyelids should be held away from the eyeball to ensure thorough rinsing. Seek medical advice if pain or redness persists.

After skin contact: Remove contaminated clothing and thoroughly wash the affected parts of the body with soap and water.

After Ingestion: Call a doctor immediately and show the label. Do not induce vomiting.

Antidote : Oxyfluorfen has no antidote. Treat symptomatically.

Storage and disposal

Store in the closed, original container in a cool, well-ventilated area. DO NOT store for prolonged periods in direct sunlight. Triple or preferably pressure rinse containers before disposal. Add rinsings to spray tank. 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. Dispose of at 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. Dispose of spent treatment solutions in a suitable waste pit clear of waterways, desirable vegetation and tree roots.

Guaranty
The use of **TOYOTO 240 EC** being beyond the control of the manufacturer, no warranty expressed or implied is given by AAKO BV, regarding its suitability, fitness or efficiency for any purpose for which it is used by the buyer, whether in accordance with the directions or not and AAKO BV accepts no responsibility for any consequence whatsoever resulting from the use of this product.

Every pesticide can be dangerous for human being and the environment if they are not handled properly.
It is advised to read the label in detail and to follow the recommendations.

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