



TRIFLUREX 480 EC

Reg No L 5350 Act / Wet 36 of 1947
N – AR 0495

A selective emulsifiable concentrate herbicide for pre-plant soil incorporation for the control of annual grasses and some broadleaf weeds in crops as indicated.

'n Selektiewe, emulgeerbare konsentraat onkruidodder wat voor plant in die grond in gewerk word vir die beheer van eenjarige grasse en sommige breëblaar onkruid in gewasse soos aangedui.

HRAC Herbicide Group Code	K 1	HRAC Onkruidoddergroepkode
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ACTIVE INGREDIENT / AKTIEWE BESTANDDEEL

Trifluralin (Dinitroaniline)

480 g / l

Trifluralin (Dinitroanilien)

NET VOLUME / NETTO VOLUME

..... l

REGISTRATION HOLDER / REGISTRASIEHOUER

Makhteshim-Agan SA (Pty) LTD

Reg No. 92/01741/07

21 Viben Street

Brackenfell

7560

Batch number

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Lotnommer

Date of Manufacture

.....

Datum van Vervaardiging

**TRIFLUREX 480 EC is the registered trademark of Makhteshim-Agan Israel.
TRIFLUREX 480 EC is die geregistreerde handelsmerk van Makhteshim-Agan, Israel.**

UN NR: 1307



**CAUTION
VERSIGTIG**



Class III

Blue

WARNINGS

- Poisonous by swallowing
- Very toxic to fish
- Store in a cool place, away from food, feeds, seed, fertilizer and other agricultural remedies.
- Keep out of reach of children, uninformed persons and animals.
- **Flammable** – keep away from heat and flames.
- Do not allow to freeze
- If swallowed do not induce vomiting since product contains an aromatic hydrocarbon solvent

Although this remedy has been extensively tested under a large variety of conditions the registration holder does not warrant that it will be efficacious under all conditions because the action and effect thereof may be affected by factors such as abnormal climatic and storage conditions; quality of dilution water; compatibility with other substances not indicated on the label and the method, time and accuracy of application. The registration holder furthermore does not accept responsibility for damages to crops, vegetation, the environment or harm to man or animal or for lack of performance of the remedy concerned due to failure of the user to follow the label instructions or to the occurrence of conditions, which could not have been foreseen in terms of the registration. Consult the supplier in the event of any uncertainty.

PRECAUTIONS

- Avoid inhalation of fumes and spraymist.
- Wash with soap and water after use or accidental skin contact.
- Prevent drift onto other crops, grazing, rivers, dams or areas not under treatment. Clean applicator after use and dispose of wash water where it will not contaminate food, grazing, rivers or dams.
- Invert the empty container over the spray tank and allow to drain for at least 30 seconds after the flow has slowed down to a drip. Rinse the empty container three times with a volume of water of at least 10 % of that of the container. Add the rinsate to the spraytank. Perforate and flatten the empty container and do not re-use for any other purpose.
- Prevent contamination of food, feed, drinking water and eating utensils and do not eat, drink or smoke while applying or mixing or before washing hands and face and change of clothing.

RESISTANCE PREVENTION MANAGEMENT

TRIFLUREX 480 EC is a member of the dinitroaniline group of herbicides, HRAC Herbicide Group Code K1. Some naturally occurring weed biotypes resistant to **TRIFLUREX 480 EC** and other herbicides belonging to Group Code K 1 herbicides may exist through normal genetic variability in any weed population. These resistant individuals can eventually dominate the weed population if these herbicides are used repeatedly. These resistant weeds will not be controlled by **TRIFLUREX 480 EC** and other Group Code K1 herbicides. To delay the selection resistant weeds, the following steps can be taken:

- Integrate tillage or other mechanical control methods (including non-selective herbicides during the fallow period) into weed control programmes whenever practical.
- Avoid the repeated use of products in the same mode of action group. Plan crop rotations to allow use of herbicides from different mode of action groups.

For further advice on the prevention of herbicide resistance, contact your local Makhteshim-Agan representative.

USE RESTRICTIONS

1) GENERAL

In addition to the crops mentioned below, the following crops may also be planted directly after a treated field has been harvested: beetroot, brassicae, carrots, castor oil, celery, cowpeas, cucurbits, fruit trees, mint, okra, potatoes, safflower, sugarcane and tomatoes. All other crops need a waiting period of at least 12 months between treatment and planting, except for grain sorghum, which is 18 months. Periods of cold weather after planting the crops may lead to phytotoxicity, e.g in the case of early season plantings.

2) WHEAT AND BARLEY

TRIFLUREX 480 EC can be used in wheat and barley provided the following conditions are met:

- **TRIFLUREX 480 EC** can only be applied if the Ausseeder DBS (Ausplow) or planters with a similar mode of action is used to plant the seed.
- The planter must throw the **TRIFLUREX 480 EC** treated soil away from the plant row to cover the interrow areas. Care should therefore be taken that planting speed and row spacing is such that the interrow is covered by the soil that is removed from the row but that the treated soil is not thrown back in the next plant row.
- Do not use **TRIFLUREX 480 EC** in areas with steep slopes where the possibility exist that treated soil may roll into the plant row.
- Do not use in very stony areas
- Apply **TRIFLUREX 480 EC** on a well prepared seedbed, free of excessive plant material and clods.
- **TRIFLUREX 480 EC is an excellent graminicide and must be removed completely from the plant row before planting. Failure to do this might lead to crop damage.**

DIRECTIONS FOR USE: USE ONLY AS DIRECTED

TRIFLUREX EC is easily decomposed by sunlight and must therefore be incorporated into the soil immediately (within 10 minutes) after it has been sprayed evenly onto the surface in about 150 – 500 liters water / ha at low pressure. The most advantageous method is to mount the sprayboom in front of the tractor and pull a disc-harrow or in the case of wheat and barley, the planter with the same tractor.

INCORPORATION

1) GENERAL (Crops other than wheat and barley)

It is important to incorporate very thoroughly into the top 5 – 10 cm of soil. Set the disc to penetrate to a depth of 10 – 15 cm. In the case of groundnuts a slightly shallow incorporation is necessary vir 3 – 5 cm with disc set to penetrate to a depth of 6 – 10 cm. In the case of groundnuts set the disc to a depth of 6 – 10 cm to incorporate to a depth of 5 m. In the incorporation with implements set to cut less than 5 cm deep may give erratic weed control. Thorough incorporation may be achieved with P.T.O. driven rotary tillers or an offset or tandem disc (alone or with spike – tooth harrow in tandem), discing the field twice, the second time at right angles with the first time. Clods must be broken up because the weed seeds in untreated clods may germinate unaffected. **TRIFLUREX EC** has a long residual action and may be incorporated at any convenient time from 2 – 3 weeks before planting time, before the rush spring season starts up to the day of planting. **TRIFLUREX EC** will not leach out of the soil, not even under conditions of high rainfall or irrigation. **TRIFLUREX EC** may stunt or even reduce the stand of cotton seedlings affected by soilborne disease. To control seedling

diseases apply a fungicide in the planting row and use treated seed.

2) WHEAT AND BARLEY

The most effective way to apply **TRIFLUREX 480 EC** in the case of wheat and barley is to apply it overall with a boom spray on the same tractor that is used to pull the planter. Application can also be done by spraying with a separate tractor and followed by the planter provided that not more than 10 minutes lapse between application and incorporation with the planter.

APPLICATION RATES:

CROP / SOIL TYPE	DOSAGE/ HA	REMARKS
GROUNDNUTS: Natal common and other Spanish upright 0 – 10 % clay 11 – 20 % clay	0,75 ℓ 1,0 ℓ	Apply before planting and incorporate in the soil within 10 minutes. The treated fields may be weeded mechanically and tilled lightly during the season without affecting the efficacy of TRIFLUREX EC adversely.
CANOLA 0 – 10 % clay 11 – 20 % clay > 20 % clay	1,0 ℓ 1,5 ℓ 2,0 ℓ	
COTTON, DRY BEANS, COW PEAS, CARROTS, SUNFLOWERS, TRANSPLANTED CABBAGES, TOMATOES, CHILLIES: 0 – 15 % clay 16 – 35 % clay 36 – 55 % clay	1,0 ℓ 1,5 ℓ 2,0 ℓ	Apply before planting or sowing and incorporate within 10 minutes. Can be used in situations where CANOLA is planted or sown for the control of mainly <i>Lolium spp</i> (Ryegrass). For improved control of mainly broad leaf weeds and some grasses in Triazine resistant Canola, TYLSIMEX 500 SC or SIMANEX 500 SC can be used as a follow on application direct after planting at a rate of 2,0 ℓ / ha. Apply before planting or transplanting and incorporate in the soil within 10 minutes. The treated fields may be weeded mechanically by a light cultivation without affecting TRIFLUREX 480 EC adversely.
STONE FRUIT, POME FRUIT, VINEYARDS, GUAVAS, CITRUS, MACADAMIAS, PECANS: 0 – 30 % clay	8,0 ℓ	Overall application before the establishment of nurseries and orchards. Use accordingly less for band treatment.
WHEAT AND BARLEY:	1,0 ℓ - 2,0 ℓ	

<p>(Southern and Western Cape) 0 – 25 % clay</p>		<p>Apply as an overall application and incorporate by a suitable planter as is described in the section under “USE RESTRICTIONS” within 10 minutes. Do not use in fields which was sown with wheat and barley but ONLY in fields which are planted. Use the higher rate where a high infestation of <i>Lolium spp</i> is expected. The control of other grasses than <i>Lolium spp</i> might be unsatisfactory and should be controlled with other herbicides from a different chemical group.</p>
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WAARSKUWINGS

- Giftig indien ingesluk.
- Uiters giftig vir visse
- Bêre in 'n koel plek en weg van voedsel, voer, saad en ander landbouchemikalieë.
- Hou buite bereik van kinders, oningeligte persone en diere.
- **Vlambaar** - Hou weg van hitte en vlamme
- Sorg dat dit nie vries nie.
- Indien ingesluk moet nie braking induseer nie aangesien produk 'n aromatiese koolstof oplosmiddel bevat.

Alhoewel hierdie middel omvattend onder 'n groot verskeidenheid toestande getoets is, waarborg die registrasiehouer nie dat dit onder alle toestande doeltreffend sal wees nie aangesien die werking en effek daarvan beïnvloed kan word deur faktore soos abnormale grond-, klimaats- en bergingstoestande; kwaliteit van verdunningswater, verenigbaarheid met ander stowwe wat nie op die etiket aangedui is nie en die voorkoms van weerstand van die onkruid teen die betrokke middel sowel as die metode, tyd en akkuraatheid van toediening. Verder aanvaar die registrasiehouer nie verantwoordelikheid vir skade aan gewasse, plantegroei, die omgewing of vir nadelige effek op mens en dier of vir 'n gebrek aan prestasie van die betrokke middel as gevolg van die versuim deur die gebruiker om etiketaanwysings na te kom of as gevolg van die ontstaan van toestande wat nie kragtens die registrasie voorsien kon word nie. Raadpleeg die verskaffer in geval van enige onsekerheid.

VOORSORGMAATREËLS

- Vermy inaseming van spuitnewel.
- Was met seep en water na gebruik of na toevallige velkontak.
- Voorkom die besoedeling van ander gewasse, weiding, riviere, damme en enige gebied nie onder behandeling nie.
- Maak toedieningsapparaat deeglik skoon na gebruik en gooi spoelwater uit waar dit nie voedsel, weiding, riviere of damme sal besoedel nie.
- Voorkom besoedeling van voedsel, voer en drinkwater en eetgerei en moenie eet, drink of rook tydens vermenging en toediening nie of voordat hande en gesig gewas is en skoon klere aangetrek is nie
- Keer die leë houer om oor die spuittenk en laat toe om vir ten minste 30 sekondes te dreineer nadat die vloeï tot 'n gedrup verander het. Spoel daarna die leë houer drie keer uit met 'n volume water gelykstaande aan tenminste 10 % van die van die houer. Gooi die spoelwater in die spuittenk. Vernietig die leë houer deur gate daarin te maak en plat te druk. Moet die leë houer vir geen ander doel hergebruik nie.

VOORKOMING VAN WEERSTAND EN DIE BESTUUR DAARVAN

TRIFLUREX 480 EC behoort tot die dinitroanilienanilien onkruidodergroep oftewel HRAC onkruidodergroepkode K1. In enige natuurlike plantpopulasie mag daar as gevolg van genetiese variasie onkruidbiotipes voorkom wat weerstandbiedend is teen **TRIFLUREX 480 EC** en ander onkruidoders wat in die onkruidodergroepkode K1 val. Hierdie weerstandbiedende individue kan uiteindelik die onkruidpopulasie oorheers as hierdie onkruidoders aanhoudend gebruik word. Hierdie weerstandbiedende onkruid sal nie deur **TRIFLUREX 480 EC** of enige ander groepkode K1 onkruidoder beheer word nie. Om die seleksie van weerstandbiedende onkruid te vertraag kan die volgende gedoen word:

- Integreer bewerking en ander meganiese beheermetodes (insluitende nie-selektiewe onkruidoders

gedurende die braakperiode) in onkruidbeheerprogramme waar moontlik.

Vermý die aanhoudende gebruik van produkte wat dieselfde werkingswyse het. Beplan gewasrotasie sodat van produkte met 'n ander werkingswyse gebruik gemaak kan word. Vir meer inligting rakende die vermyding van onkruidweerstand, skakel met 'n plaaslike Makhteshim-Agan verteenwoordiger

GEBRUIKSBEPERKING

1) ALGEMEEN

Behalwe die gewasse wat hieronder genoem word, mag die volgende verbou word direk nadat 'n behandelde land ge-oes is: beet, koolgewasse, wortels, kasterolie, akkerbone, pampoengewasse, vrugteboorde, kruisement, okra, aartappels, saffloer, suikerriet en tamaties. Alle ander gewasse vereis 'n wagperiode van ten minste 12 maande tussen behandeling en plant behalwe graansorghum wat 18 maande vereis. Periode van koue weer na plant van die gewas mag tot fitotoksisiteit lei, byvoorbeeld, vroeë seisoen aanplantings.

2) KORING EN GARS

TRIFLUREX 480 EC kan in koring en gars gebruik word, as die volgende voorwaardes nagekom word.

- **TRIFLUREX 480 EC** kan alleenlik gebruik word waar die Ausseeder DBS (Ausplow) of soortgelyke planters met 'n soortgelyke werkingswyse gebruik word om die saad te plant.
- Die planter moet die **TRIFLUREX 480 EC** behandelde grond van die plantry afgooi om die gebied tussen die plantry te bedek. Sorg moet daarom gedra word dat die plantspoed en die ryspasiëring sodanig is dat die tussenry bedek word met grond wat van die plantry verwyder is, maar dat die behandelde grond nie oorgegooi word in die volgende plantry nie.
- Moet nie **TRIFLUREX 480 EC** gebruik op steil hellings waar die moontlikheid bestaan dat die behandelde grond in die plantry kan inrol nie.
- Moet nie in baie klipperige grond gebruik nie.
- Dien **TRIFLUREX 480 EC** toe op 'n goed voorbereide saadbed sonder oormatige plantreste en kluite.
- **TRIFLUREX 480 EC** is 'n uitstekende vooropkom grasdoder en moet geheel en al van die plantry verwyder word, voor die saad geplant word. Indien dit nie gedoen word nie, mag dit tot gewasskade lei.

GEBRUIKSAANSYSINGS: GEBRUIK ALLEENLIK SOOS AANGEDUI

TRIFLUREX EC word maklik deur sonlig afgebreek en moet dadelik (binne 10 minute) in die grond ingewerk word nadat dit egalig oor die oppervlak gespuit is in ongeveer 150 – 500 liter water / ha teen lae druk.

Die voordeligste metode is om die spuitbalk voor op die trekker te monteer sodat die skotteleg of in die geval van koring en gars, die planter met dieselfde trekker getrek kan word.

INWERKING

1) ALGEMEEN (gewasse uitgesonderd koring en gars)

Dit is belangrik om baie deeglik in die boonste 5 – 10 cm van die grond in te werk. Stel die skottels sodat hulle 10 – 15 cm penetreer. In die geval van grondbone, sny 6 – 10 cm diep sodat effektiewe inwerkingsdiepte ongeveer 5 m is. Vlak inwerking deur implemente wat minder as 5 cm diep sny kan wisselvallige onkruidbeheer tot gevolg hê. Deeglike inwerking kan met 'n kragaangedrewe kapploeg of wisselgang – of

tandemskotteleg (met of sonder tande agteraan) verkry word. Bewerk twee keer met die tweede keer reghoekig oor die eerste keer. Kluite moet opgebreek word omdat die onkruidsaad in onbehandelde kluite ongeskonde mag ontkiem. **TRIFLUREX EC** het 'n lang nawerking en mag te eniger tyd, vanaf 2 – 3 weke voor planttyd ingewerk word voordat die spitswerktyd van die lente aanbreek, tot op die dag van plant. **TRIFLUREX EC** sal nie uit die grond loog nie, selfs nie in gevalle van hoë reënval of besproeiing nie. **TRIFLUREX EC** mag katoen saailinge wat deur grondgedraagde siektes verswak is, se groei belemmer of selfs die stand verminder. Om saailingsiektes te bestry moet 'n geskikte swamdoder in die plantvoor aangewend en behandelde saad gebruik word.

2) KORING EN GARS

Die mees effektiewe manier om **TRIFLUREX 480 EC** in die geval van koring en gars toe te dien is om algeheel toe te dien deur middel van 'n spuitbalk wat op die trekker wat die planter trek, gemonteer is. Toediening kan ook gedoen word deur 'n spuit op 'n aparte trekker te monteer wat dan deur 'n ander trekker met die planter gevolg word. Dit is egter belangrik om daarop te let dat 'n periode van nie meer as 10 minute tussen toediening en plant moet verloop nie.

TOEDIENINGSHOEVEELHEDE:

GEWAS / GRONDTIPE	DOSIS / HA	OPMERKINGS
GRONDBONE: Natal common en Spaanse regop tipes 0 – 10 % klei 11 – 20 % klei	0,75 ℓ 1,0 ℓ	Dien toe voor plant en werk binne 10 minute in die grond in. Die behandelde lande mag dwarsdeur die seisoen lig geskoffel of bewerk word sonder om die werking van TRIFLUREX EC te benadeel.
KANOLA 0 – 10 % klei 11 – 20 % klei > 20 % klei	1,0 ℓ 1,5 ℓ 2,0 ℓ	Dien voor plant of saai toe en werk binne 10 minute in die grond in. Kan gebruik word in situasies waar KANOLA gesaai word of waar dit geplant word vir die beheer van hoofsaaklik <i>Lolium spp</i> (Raaigras) Vir verbeterde beheer van hoofsaaklik breëblaaronkruid en sommige grasse in Triasien weerstandbiedende Kanola kan TYLSIMEX 500 SC of SIMANEX 500 SC direk na plant as 'n opvolgbespuiting teen 2,0 ℓ / ha toegedien word.
KATOEN, DROëBONE, AKKERBONE, GEELWORTELS, SONNEBLOMME, UITGEPLANTE TAMATIES, KOOL, RISSIES: 0 – 15 % klei 16 – 35 % klei 36 – 55 % klei	1,0 ℓ 1,5 ℓ 2,0 ℓ 8,0 ℓ	Dien toe voor plant of uitplant toe en werk binne 10 minute in die grond in. Die behandelde lande mag dwarsdeur die groeiseisoen lig geskoffel word sonder dat die werking van TRIFLUREX 480 EC sal benadeel.

<p>STEENVRUGTE, KERNVRUGTE, WINGERDE, KOEJAWELS, SITRUS, MAKADAMIAS, PEKANNEUTE: 0 – 30 % klei</p>	1,0 – 2,0 ℓ	Algehele toediening voordat kwekerye en boorde gevestig word.. Gebruik dienooreenkomstig vir strookbehandeling
<p>KORING EN GARS: (Suid- en Weskaap) 0 – 25 % Klei</p>	1,0 – 2,0 ℓ	Dien algeheel toe en werk binne 10 minute deur middel van ‘n geskikte planter in soos onder “GEBRUIKSBEPERKINGS” BESKRYF. MOET NIE op lande gebruik word nie waar koring en gars gesaai is nie, maar gebruik ALLEENLIK op lande waar geplant word. Gebruik die hoër toedieningshoeveelheid waar hoër besmettings van <i>Lolium spp</i> verwag word. Die beheer van ander grasse behalwe <i>Lolium spp</i> mag onbevredigend wees en moet deur ander onkruidodders van ‘n ander chemiese groep beheer word.

**SOMMIGE ONKRUIDSOORTE WAT NORMAALWEG BEHEER WORD /
SOME WEED SPECIES NORMALLY CONTROLLED**

GRAANSOORTE		GRASS SPECIES
<p><i>Brachiaria eruciformis</i> <i>Bromus unioloides</i> <i>Cenchrus incertus</i> <i>Chloris virgata</i> <i>Dactyloctenium aegyptium</i> <i>Digitaria sanguinalis</i> <i>Digitaria ciliaris</i> <i>Echinochloa crusgalli</i> <i>Echinochloa colona</i> <i>Eleusine indica</i> <i>Eragrostis cilianensis</i> <i>Eragrostis aspera</i> <i>Lolium spp</i> <i>Panicum shinzii</i> <i>Poa annua</i> <i>Seteria pallide-fusca</i> <i>Setaria verticillata</i> <i>Sorghum halepense</i> <i>Tragus racemosus</i> <i>Urochloa panicoides</i></p>	<p>Litjiesinjalgras Reddingsgras Dubbeljiesgras Witpluimchloris Gewone hoenderspoor Kruisvingergras Tropiese kruisvingergras Hanepotmanna Moerasgras Jongosgras Stinkeragrostis Grootpluimeragrostis Raaigras Soetbuffelsgras Wintergras Tuinsetaria Klitssetaria Johnsongras (van saad) Loosaarwortelsaadgras Tuin urochloa</p>	<p>Sweet signal grass Rescue grass Mat sandbur Feather-top chloris Common crowfoot Crab finger grass Tropical Finger grass Barnyard grass Marsh grass Goose grass Stink love grass Rough love grass Rye grass Sweet buffalo grass Winter grass Garden bristle grass Bur bristle grass Johnson grass (from seed) Stalked bristle grass Garden urochloa</p>
<p>BREëBLAARSOORTE <i>Amaranthus deflexus</i> <i>Amaranthus hybridus</i> <i>Amaranthus spinosus</i> <i>Amaranthus thunbergii</i></p>	<p>Meerjarige misbredie Gewone misbredie Doringmisbredie Rooimisbredie</p>	<p>BROADLEAF SPECIES Perennial pigweed Common pigweed Thorny pigweed Red pigweed</p>

<i>Chenopodium album</i>	Withondebossie	White goosefoot
<i>Polygonum aviculare</i>	Voëlduisenknoop	Prostrate knotweed
<i>Portulaca oleracea</i>	Porselein	Common purslane
<i>Stellaria media</i>	Gewone sterremuur	Chick weed
<i>Tribulus terrestris</i>	Gewone dubbeltjie	Common dubbeltjie