



# KALIF

GUARANTEE (DHAMANA):  
Clomazone 480g/l, EC

An early pre plant, pre emergence or early post emergence herbicide for the control of grasses, sedges and broad leafed weeds in Rice, Soybeans, Tobacco and Sugarcane.

kuia gugu kinachotumika kabla ya mmea kuota au muda usiomrefu baada ya kuota ili kudhibiti aina za kwekwe (nyasi, matawi mapana) kwenye mmea wa mchele, Mahrage ya Soya, Tumbako na Miwa.



FLAMMABLE  
LIQUID



IRRITANT  
HUWASHA



SCAN FOR  
WEBSITE



HERBICIDE



Commercial and Agricultural class • Kwa biashara na kilimo  
Registration number / Namba ya Usajili: TPRI HE/0232

READ LEAFLET BEFORE USING • KEEP OUT OF REACH OF CHILDREN  
SOMA KIBANDIKO KABLA YA KUTUMIA • WEKA MBALI NA WATOTO

1 Liter

S4 948A/1

ADAMA  
ESSENTIALS



CAUTION



ADAMA

OPEN HERE



## MAELEZO

KALIF 480EC ni kuia gugu kinachotumika kabla ya mimea kuota au muda mfupi baada ya mimea kuota ili kudhibiti magugu ya nyasi yanayo dumu msimu mmoja, magugu ya majini mapana na magugu aina ya kwekwe. Inatumika kwenye mpunga na mimea mengine.

## INAVYO FANYA KAZI

Kalif 480EC hufyonzwa kupitia mizizi na matawi ya magugu yanayoota. Dawa inafyonzwa hadi kwenye majani. Mimea iliyoguzwa na Kalif 480EC inabadilika rangi kuwa nyeupe na baadaye kufa.

## JINSI YA KUTUMIA

Mimea	% udongo wa mfinyazi	Vipimo (Lt kwa Ha)	Maoni
Mahrage ya Soya	Kalif	0%-20%	1.75
		21%-30%	2
		31%-50%	2.3
	Kalif na madwa mengine ya kuua magugu	0%-20%	Hai pendekewzi
		21%-30%	1.5
		31%-50%	1.75
Mimea	Kiwango cha ukuwaji/ Aina ya mimea	Vipimo (Lt kwa Hekta)	Maoni
Tumbako	Flue cured	1.5	Kalif inapendekewza itumike mara baada ya kupanda tumbaku kwenye udongo ambao hauna magugu. Kalif inaweza kutumika hadi wiki nne baada ya kupanda, kama kuna kuchelewa zisizotarajiwa katika kupanda.
	Burley tobacco	1.5-2	



Mimea	Kiwango cha ukuwaji/ Aina ya mimea	Vipimo (Lt kwa Hekta)	Maoni
Mpunga – Shamba iliyo na maji.	Wiki 4 baada ya kuhamisha mpunga na kupanda shambani ikiwa na majani 2-4 na kabla magugu hayajaota au magugu yakiwa na majani 1-2.	Lita 1 kwa hekta, au Mililita 160 kwa lita 20 za maji Kiwango cha maji ni lita 120 kwa hekta.	Katika mchanganyiko kwa tenki na madawa ya kuua magugu aina ya sulfonylurea au propanil, kiwango cha Kalif ipunguzwe hadi mililita 630 kwa hekta.  Kwenye mpunga uliopandwa moja kwa moja shambani, nyunyizia dawa kabla ya majani kuota kwenye udongo ulio na mvuke. (Maji yanawekwa kama kawaida baadaye) Kwenye mpunga ambao umehamishwa na kupandikizwa shambani, dawa inanynyizwa baada ya kutoa maji yote shambani. Maji yawekwe tena shambani baada ya siku mbili.
Miwa Sugarcane	Nyunyizia dawa mara baada ya kupanda miwa kenyе udongo mkavu. Mwagilia maji baada ya kutumia Kalif.	0.75-2	



## **Magugu yanayodhibitiwa na Kalif 48 EC**

**Manyasi yakudumu msimu mmoja:** Digitaria spp (Finger grass), Eleusine indica (Rapoko grass), Panicum spp (Panicum), Rhynchelytrum repens (Natal Red Top), Setaria spp., Urochloa spp, Rottboellia cochinchinensis (Shamva grass), Commelinia benghalensis (Wandering Jew), Cyperus difformis (variable flatsedge), Echinochloa crus-galli (barnyard millet), Scirpus Juncoides , Monochoria Vaginalis (oval-leaved pondweed).

**Magugu yenyenye majani mapana:** Nicandra physalodes (Apple of Peru), Galinsoga parviflora (Gallant Soldier), Bidens pilosa (Blackjack), Portulaca oleracea (Purslane).

### **Mazao yenyenye mzunguko:**

Kabichi, vitunguu, malenge na Njegere inaweza kupandwa miezi 6 baada ya Kalif kutumika. Mahindi, Shayiri, ngano na nyasi inaweza kupandwa miezi 9 baada ya Kalif kutumika maombi. Kwa mazao mengine, pata ushauri wa muuzaji. Kulima udongo vizuri kabla ya kupanda mazao mengine itapunguza hatari ya uwezekano wa dawa kuathiri mazao hayo.

## **KUCHANGANYA KWENYE UDONGO**

Kuchanganya dawa na udongo kijujuu kunaleta matokeo bora zaidi. Changanya na udongo urefu usiozidi centimita 8. Kwenye udongo mkavu ambao hauna unyevu, changanya udongo baada ya masaa manane ya kunyunyizia dawa. Ukinyunyiza kwenye udongo ambao una unyevu, changanya mara baada ya kunyunyizia dawa.

## **TAFADHALI ZINGATIA**

Kalif inaweza kuchanganya pamoja na madawa mengine ya kawaida ya kuua magugu. Madawa mengine ambayo ni mapya, lazima yafanyiwa majaribio kabla ya kuchanganya. Madawa ambayo hayana maelezo ya kutosha, lazima ushauri wa wasambazaji utafutwe.

## **TAHADHARI**

Dalili ya uharibifu unaweza kutokea kwenye mazao yaliyo jirani, vichaka na miti kama upopo utafanya dawa ufikie mimea hayo. Uharibifu unaweza kupunguzwa kwa kutumia matone kubwa dawa, kupunguza nguvu ya bomba kupuliza na kutonyunyizia dawa katika hali ya upopo. Usinyunyizie dawa wakati kasi ya upopo unazidi 15km kwa saa. Usinyunyizie dawa ndani ya miti, vichaka au mboga mboga.



## **TAHADHARI**

Bidhaa hii ni sumu kali ikimezwa, ikipumuliwa au ikimwagikia kwenye ngozi. Inaweza kusababisha ngozi, pua na macho kuwasha.

## **MATUMIZI**

Vaa ngao za kujikinga, viatu, vizuizi nya mikono na uso (face shield au mask) na chombo maalum cha kupumua unapotayarisha mchanganyiko wa dawa na maji na unaponyuniza dawa. Jihadhari usipumue mvuke wa dawa, mchanganyiko wa dawa usingie kwenye macho au kumwagikia ngozi na nguo ulizovalia. Usinyunyizie dawa hii ukielekea upande upepo unakotoka. Usivute sigara, usile na usinywe wakati unapotumia dawa hii.

## **BAADA YA KAZI**

Vua nguo za kazi na vizuizi nya kujikinga, osha mikono na uso kwa kutumia sabuni na maji mengi. Safisha Bomba la kunyunyizia dawa na mavazi yaliyoamwagikiwa na dawa kwa uangalifu.

## **KUHIFADHI**

Hifadhi dawa hii katika chombo chake halisi ambacho kimefunikwa na kuwekwa mahali ambapo ni salama, mbali na watoto, watu wasioruhusiwa, vyakula, maji na vyakula nya mifugo.

## **UTUPAJI**

Safisha mkoba wa dawa iliyoisha kwa kusunza mara tatu kisha utoboe au ubonyeze na utupilie au uzike mbali na maji. Usitumie mkoba wa dawa kwa matumizi mengine yoyote. Mchanganyiko wa dawa ambao haujatumika au maji yaliyoosha mkoba wa dawa ni lazima yatupiliwe mahali ambapo ni salama, panapokubaliwa, na mbali na mito, visima au vidimbwi na chemichemi au kunyunyizia mahali ambapo hapajalimwa.

## **MADHARA KWA MAZINGIRA**

KALIF 480EC ni sumu kwa samaki, viumbe vingine vinavyoishi kwenye maji na nyuki. Inaweza kudhuru ndege na wanyama. Usichafue mazingira kwa kunyunyizia, kumwaga mabaki ya dawa, kutupa, au kusunza mkoba wa dawa kwenye mito, visima au vidimbwi na chemichemi. Usinyunyize dawa hii wakati nyuki wanatembelea maua. Usiruhusu mifugo na wanyama wa pori kuingia mahali dawa hii imenyunyiziwa. Usitoe maji katika mpunga kabla ya siku 10.



## **MAELEZO YA HUDUMA YA KWANZA**

**Ikimezwa:** Usimfanye mgonjwa aliye katika hali maututi kutapika. Muoshe mdomo, kisha umuone daktari. Ikipumuliwa: Toa mhadhiriwa mahali penye hatari na umpumzishe mahali ambapo ni salama na penye hewa safi. Kama mjeruhi anashida ya kupumua, msaidie apumue, kisha umpeleke kwa daktari. Ikimwagikia ngozi: Ondoa nguo na viatu zilizomwagikiwa na dawa mara moja. Safisha kwa sabuni na kiasi kikubwa cha maji mpaka umehakikisha ya kwamba kemikali imetoka yote. Pata matibabu mara moja kwa daktari. Ikingia kwa macho: Fungua macho na uyasafishe kwa maji safi yanayotiririka kwa muda wa dakika 15. Iwapo maumivu yataendelea, muone daktari.

## **MAELEZO KUHUSU SUMU**

Dalili ya kusumika; kizunguzungu, kusinzia, kutoona vizuri, kutopumua vizuri. Kutapika baada ya kumeza dawa hii inaweza kusababisha madhara kwenye mapafu, ambayo inaweza kusababisha kifo.

**Tiba:** Haina tiba maalum.

Tibu mgonjwa kulingana na dalili za maumivu.

## **ILANI KWA MTUMIAJI**

Dawa hii sharti itumiwe kulingana na maagizo yaliyo kwenye kibandiko. Ni hatia chini ya sheria za madawa ya kuangamiza wadudu waharibifu kutumia au kuhifadhi dawa hii katika hali isiyo salama.

## **THIBITISHO**

Dhamana ya muuzaji ni maelezo yaliyo kwenye kibandiko ambayo ni lazima yafuatwe kikamilifu. Mnunuzi lazima akubali hatari zozote zinazoweza kutokana na matumizi ya dawa hii kwa binadamu au mali na lazima aikubali dawa hii katika hali hiyo.



**KALIF 480EC** is an early pre plant, pre emergence and early post emergent herbicide used for control of annual grasses, sedges and broadleaved weeds in Rice and other crops.

#### MODE OF ACTION

Kalif is absorbed by roots and emerging shoots, it is translocated from the xylem into the foliage. Kalif 480EC inhibits the biosynthesis of the enzyme phytoene detsaturase, which takes part in the carotenoides synthesis pathway. The photosynthetic pigment in the sensitive plant are inhibited, the plant is bleached white and eventually dies.

#### DIRECTIONS FOR USE

Crop	% Clay		Rate (Lt/Ha)	Remarks
Soybeans	Kalif	0%-20%	1.75	Combination between Kalif and other commonly used registered herbicides for soybeans will improve efficacy.
		21%-30%	2	
		31%-50%	2.3	
	Kalif with other herbicides	0%-20%	Not recommended	
		21%-30%	1.5	
		31%-50%	1.75	
Crop	Stage/type of crop		Rate (Lt/Ha)	Remarks
Tobacco	Flue cured		1.5	Kalif should be applied right after planting the tobacco, on weed-free soil. Kalif may be applied up to four weeks after planting, if there is unexpected delay in planting.
	Burley tobacco		1.5-2	



Crop	Stage/type of crop	Rate (Lt/Ha)	Remarks
Rice-flooded	Transplanted rice after 4 weeks (2-4 leaf stage) And pre- or early post-emergence of weeds (1-2 leaves maximum)	1 Lt/Ha, or 160 ml/20Lt spray solution spray volume of 120 Lt/Ha	In tank-mixtures with sulfonylurea herbicides or propanil, dose rate of Kalif should be reduced to 0.63 Lt/Ha.  On direct seeded rice, a pre-emergence application should be done on wet soil (and flooding is done afterwards).  On transplanted rice, application of the herbicide is done after water is drained. The field is flooded again after waiting 2 days.
Sugarcane	Immediately after sugarcane planting onto dry soil. Irrigate following application of Kalif	0.75-2	

#### Weeds controlled by Kalif 48 EC:

**Annual grasses:** Digitaria spp (Finger grass), Eleusine indica (Rapoko grass), Panicum spp (Panicum), Rhynchelytrum repens (Natal Red Top), Setaria spp., Urochloa spp, Rottboellia cochinchinensis (Shamva grass), Commelina benghalensis (Wandering Jew), Cyperus difformis (variable flatsedge), Echinochloa crus-galli (barnyard millet), Scirpus Juncoides , Monochoria Vaginalis (oval-leaved pondweed).

**Broadleaf weeds:** Nicandra physalodes (Apple of Peru), Galinsoga parviflora (Gallant Soldier), Bidens pilosa (Blackjack), Portulaca oleracea (Purslane).



## **Rotational Crops**

Cabbages, Onions, Cucurbits and Peas may be planted 6 months after Kalif application. Maize, Sweet corn, Oats, Barley, Rye, Lucerne, Wheat and Grass lays may be planted 9 month after Kalif application. For other crops, consult the supplier. Deep cultivation of soil prior to planting of follow-up crop will reduce the potential risk of carryover.

## **SOIL INCORPORATION APPLICATIONS**

Shallow incorporation normally results in a better weed control than deep incorporation. Incorporate to a depth of no more than 8cm. On dry soil, incorporate within 8 hours from application. When applied onto wet soil, incorporate immediately

## **NOTE**

Kalif can be used in tank mix with other registered commonly used herbicides. New formulations should be tested prior to use and with lack of information need to be consulted with the supplier.

## **WARNING**

Phytotoxicity symptoms may occur on neighboring crops, shrubs and trees as a result of spray drift or volatility of the product. Spray drift may be reduced by using large spray droplets, reducing spray pressure, avoiding spraying in windy conditions and lowering spray booms as possible. Use the proper nozzle size to deliver the desired spray volume at the lowest possible spray pressure. Volatilization may be enhanced by high temperature, high humidity and soil moisture.

Do not spray when wind speed exceeds 15km per hour. Do not apply within 300 meters of tree crops, shrubs or vegetables.

## **HAZARDS/PRECAUTIONS**

This product is very toxic when swallowed, inhaled or absorbed through the skin. May cause irritation of the skin, eyes, and mucous membranes and may cause skin sensitization.

## **HANDLING**

Wear suitable protective clothing, gloves, face shield/safety goggles and respirator when preparing the spray mixture and in addition impermeable boots when spraying. Avoid, breathing the spray mist, contact with skin, eyes and clothing. Do not apply upwind and stay out of the spray mist. Do not smoke, drink or eat while handling the product.



## AFTER WORK

Change protective clothing and wash hands thoroughly with soap and plenty of water. Wash the spraying equipment and the contaminated clothing carefully.

## STORAGE

Store in tightly closed (or sealed) original pouch, in a cool dry place out of reach of children and unauthorized persons, away from food, drinks and animal feed.

## DISPOSAL

Dispose off by triple rinsing and crushing or perforating empty containers and throwing them away in an authorized landfill site or bury in a safe place away from water supplies. Do not re use empty containers for any other purpose.

Pesticide spray mixture or rinsate that cannot be used must be disposed off in a safe place where it cannot contaminate surface water and ditches or by spraying in a fallow land.

## ENVIRONMENTAL HAZARDS

Kalif 480EC is toxic to fish, other aquatic organism. It is harmful to birds, animals and relatively toxic to bees but due to the mode of application as drip/trickle irrigation, a hazard to bees is not to be expected. Do not contaminate ponds and waterways by direct application, cleaning of equipment, disposal of wastes and empty container. Keep livestock and wildlife out of treated areas. Do not drain the paddy water within 10 days after application.

## FIRST AID INSTRUCTIONS

**Ingestion:** Never give anything by mouth to an unconscious person. Show this label to the doctor. **Inhalation contact:** Remove from exposure area to fresh air immediately. Perform artificial respiration if necessary. Keep person warm and at rest. Obtain medical attention.

**Skin Contact:** Remove contaminated clothing and shoes immediately. Wash with soap or mild detergent and large amounts of water until no evidence of chemical remains. Get medical attention immediately. **Eye Contact:** Wash eyes immediately with large amounts of water or normal saline, occasionally lifting upper and lower lids, until no evidence of a chemical remains.



## **TOXICOLOGICAL INFORMATION**

symptoms of poisoning; dizziness, drowsiness, disturbance in vision, eye, skin, mucous & respiratory irritation, vomiting after ingestion of this product may cause aspiration of aromatic hydrocarbons into the lungs, which may result in fatal pulmonary.

**Antidote:** There is no known specific antidote

**Treatment:** Treat symptomatically.

## **NOTICE TO USERS**

This pest control product is to be used only in accordance with the directives on the label. It is an offence under Pest Control Products Act to store pesticides in an unsafe manner.

## **WARRANTY**

Sellers guarantee is limited to the terms set out on the label and subject thereto, the buyer assumes the risk to persons or property arising from the use or handling of this product and accepts the product in that condition.



**Shelf Life:** 2 years from the date of manufacture if stored in unopened original container in a dry cool place.

**Maisha rafuni:** Miaka miwili baada ya tarehe ya kutengenezwa iwapo dawa hii itahifadhiwa kwa chombo chake asili bila kufunguliwa na iwe mahali pakavu na pasipo na joto.

**Manufactured by / Imetengenezwa na:**

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Expiry date  
Date of Manufacture SEE PACKING  
Batch Number

ADAMA