## DESCRIPTION

**TWIGAMETHALIN** is a selective herbicide for control of many annual grasses and annual broad-leaved weeds in wheat and barley. It is absorbed through roots and leaves and the affected plants die shortly after germination or following emergence from the soil. It works by inhibiting cell division and cell elongation.

**DIRECTIONS FOR USE**

**TWIGAMETHALIN** is a pre-emergence residual herbicide and best applied to the soil directly after planting or at the latest 10 days after planting. The soil should be well-prepared and hushed up without weeds or turf. The spraying should be carried out on freshly prepared soil, at the latest, 5 days after the preparation. Residual moisture is needed for the activation of **TWIGAMETHALIN.** If soil is dry at the time of application, rain is needed within 7 days, or irrigation to be done.

**Application Rate:** Use 3.0 - 3.5 L/ha in 200L of water (300ml in 20L of water)

**METHOD OF APPLICATION**

**TWIGAMETHALIN** may be used by ground application using tractor mounted boom sprayer or knapsack sprayer, or by aerial application. Half fill the spray tank with clean water; add the necessary quantity of **TWIGAMETHALIN** and stir, then top up with water. Shake the product before pouring and thoroughly rinse the container for product residues, and then add the rinse water to the spray mixture. Keep on agitating when filling and during spray operations.

**HANDLING PRECAUTIONS**

- Do not smoke drink or eat while using this product.
- Avoid eye contact. Wear safety goggles when handling the product.
- Avoid spray mist and exposure to the product. Wear rubber gloves, mask covering nose and mouth. Wear protective clothing such as long sleeved shirts, long pants and rubber boots when handling the product.
- After application wash yourself and your work clothes.
- Do not enter treated area within 12 hours of application unless protective clothing is worn.

**STORAGE**

Store in original, tightly closed container away from children, food, drinks and livestock feedstuffs. Store in a cool, dry and well ventilated area under lock and key. Avoid exposure to direct sunlight. Kept under these conditions, the shelf life of **TWIGAMETHALIN** is 2 years.

**DISPOSAL**

Surplus product, if unused should be disposed off according to national regulations on chemical disposal on a landfill site approved for pesticides or bury in a safe place away from water sources. Do not use empty container for any other purpose. Empty containers are to be triple rinsed, flattened, perforated and disposed off on a landfill site or buried in a safe place away from water sources in accordance with national regulations on chemical disposal.

**SPILLAGE AND LEAKAGE**

Soak up with inert absorbent material (e.g. sand, silica gel, acid binder, universal, sawdust). Collect and transfer the product into a properly labelled and tightly closed container. Clean contaminated floors and objects thoroughly, observing environmental regulations. Spilt product must not be re-used.

**ENVIRONMENT AND WILDLIFE**

The product is toxic to fish and aquatic invertebrates. Do not contaminate water sources and supplies by disposal of product waste. Keep livestock out of treated areas. **TWIGAMETHALIN** is not toxic to natural enemies and beneficial insects such as bees and wasps and, soil invertebrates when used at recommended rates.

**FIRST AID INSTRUCTIONS**

***In case of eye contact:*** Flush the eyes with running water for at least 15 minutes while holding eyelids open to help flush out material. Contact a physician immediately.
**In case of skin contact:** Wash contaminated skin with soap and plenty of water. Remove contaminated clothing. If skin irritation persists, contact a physician immediately.
***In case of inhalation:*** Remove the patient away from contaminated area and place the patient in a well-ventilated area and give artificial respiration. Keep warm and at rest. Consult a doctor.
***In case of ingestion:*** If small a amount is swallowed, drink plenty of water and induce vomiting. Repeat until fluid is clear. If a large amount is ingested (i.e. one mouthful), induction of vomiting should be considered if patient is fully conscious and less than 30 minutes has elapsed since ingestion. Never give anything by mouth to an unconscious person. Contact a physician immediately.

**TOXICOLOGIAL INFORMATION**

***Symptoms of poisoning:*** Non-specific. However, it is expected that following ingestion, nausea, vomiting, abdominal distress, diarhoea, muscle spasm, stiff gait and increased respiratory rate may occur.

**Antidote**

No specific antidote is known.

**Notes to the physician**

Apply symptomatic therapy and supportive therapy. In case of ingestion, induce vomiting, perform gastric lavage. Do not perform gastric lavage if victim is unconscious.
**In case of an emergency, call Toll free Nos: 0800720021 and 0800730030 (24hrs)**

**NOTICE TO USER**

This pest control product is to be used only in accordance with the directions on this label. It is an offense under the Pest Control Products Act to use or store a pest control product under unsafe conditions.

**WARRANTY**

Seller's 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 on that condition.

READ THE LABEL BEFORE USING (SOMA KIBANDIKO KABLA YA KUTUMIA)

# TWIGAMETHALIN®

**50% EMULSIFIABLE CONCENTRATE** **50EC**

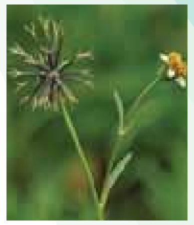
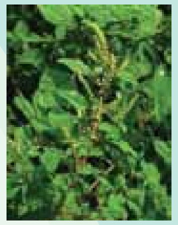
**A herbicide for the control of annual grasses and broad leaved weeds in wheat.**
**(Dawa maalum ya kuuwa kwekwe aina nyingi kwenye mimea ya ngano).**

COMMERCIAL AND AGRICULTURAL CLASS (KUNDI LA BIASHARA NA KILIMO)

**REGISTRATION NO.: PCPB (CR) 0590**
**(NAMBARI YA USAJILI)**

**GUARANTEE:** PENDIMETHALIN 500 G/L
**(DHAMANA)**

KEEP LOCKED AND OUT OF REACH OF CHILDREN (WEKA MBALI NA WATOTO)

**SHELF LIFE:** 2 years from date of manufacture in original, unopened container stored in a cool dry well ventilated place.
**MAISHA RAFUNI:** Miaka miwili baada ya tarehe ya kutengenezwa ikihifadhiwa kwenye mtungi wake halisi usiofunguliwa na uliowekwa pahali pakavu na baridi.

Flammable

Toxic to aquatic life

| | |
|---|---|
| DATE OF MANUFACTURE (TAREHE YA KUTENGENEZWA | |
| BATCH NO.: (NA NAMBARI YA KIFURUSHI) | |
| EXPIRY DATE (TUMIA KABLA YA): | |

**IN CASE OF AN EMERGENCY, CALL TOLL FREE NOS (WAKATI WA DHARURA PIGA SIMU BILA MALIPO ): 0800720021 AND 0800730030 (24HRS /MASAA 24)**

**20 LITRES**

TWIGA CHEMICALS

**DISTRIBUTOR (MSAMBAZAJI) IN KENYA:**
TWIGA CHEMICAL INDUSTRIES LTD.
P.O. BOX 30172, 00100, GPO,
NAIROBI, KENYA.
TEL: 254-020-3942000 /3942300, FAX: 3942405

MEMBER OF AGROCHEMICALS ASSOCIATION OF KENYA REGISTRATION NUMBER 102

**MANUFACTURER (MTENGENEZAJI)**
**MEGHMANI INDUTRIES LTD**
UNIT-II, PLOT NO. 27,
GIDC INDUSTRIAL ESTATE,
VATVA, AHMEDABAD 382 445,
GUJARAT INDIA

**CAUTION**

**ILANI**

**MAELEZO**

**TWIGAMETHALIN** ni dawa maalum ya kuuwa kwekwe aina nyingi kwenye mimea ya ngano na shayiri. Dawa hii huingia kwenye kwekwe kupitia mizizi na matawi na hivyo kuwauwa mara tu zinapo tokea kutoka mchangani.

**MAAGIZO YA MATUMIZI**

**TWIGAMETHALIN** hutumika wakati kwekwe zinaota kutoka mchangani. Kwa hivyo nyunyizia kwenye mchanga muda mfupi baada ya kupanda mbegu au kabla ya siku kumi kumalizika kufuatia kupanda. Shamba linapaswa kutayarishwa vizuri na kunyunyiziwa dawa muda mfupi baadaye (au kabla ya siku tano kumalizika). Mchanga unapaswa kuwa wa unyevu nyevu ili dawa kufanya kazi ipasavyo.

***Kipimo cha Matumizi:*** Lita 3.0 hadi 3.5 kwa hektari moja kwenye lita 200 ya maji. (Mililita 300 kwa Lita 20 ya maji)

**NJIA YA KUTUMIA**

Unyunyiziaji was **TWIGAMETHALIN** kwenye mchanga unaweza kufanywa kupitia 'boom sprayer' na 'knapsack sprayer' au kupitia angani. Jaza mtungi wa kunyunyizia, na maji masafi ongeza kiwango kinachohitajika cha **TWIGAMETHALIN** na ukoroge kisha ongeza maji tena. Sukasuka dawa vizuri kabla hujaimwaga na uoshe vizuri chombo cha dawa ukitumia maji kiasi kidogo na kisha uongeze maji haya uliosuzia kwenye mchanganyiko wa dawa ulio ndani ya mtungi wa kunyunyizia.

**MADHARA KWA MIMEA**

Hakuna madhara yatakayotokea kwenye mimea iwapo **TWIGAMETHALIN** itatumiwa vile inavyoshauriwa.

**TAHADHARI WAKATI WA MATUMIZI**

- Usivute sigara, usinywe, wala usile wakati unatumia dawa hii.
- Chunga isiingie machoni. Vaa miwani ya kukinga macho unapotumia dawa hii.
- Hepukana na mvuke wa dawa hii, na kujiweka wazi kwenye dawa. Vaa glovu za mkono za raba, vaa kifuniko cha pua na mdomo. Vaa nguo za kujikinga kama shati la mikono mirefu, suruali ndefu na gambuti za raba, unapotumia dawa hii.
- Baada ya kutumia dawa hii oga mwili na uoshe nguo zako za kazi.
- Usiingie kwenye eneo ambalo limenyunyiziwa dawa kable ya masaa 12 kumalizika.

**KUHIFADHI**

Hifadhi ndani ya chombo chake halisi kilichofungwa vizuri mbali na watoto, chakula, vinywaji na chakula cha mifugo. Hifadhi dawa hii mahali baridi, pakavu na panapopitisha hewa safi, na palipo fungwa na kufuli. Hepuka kuweka kwenye mwangaza mkali wa jua. Ikiwa **TWIGAMETHALIN** itahifadhiwa katika hali hii muda wake wa kudumu ni miaka 2.

**KUTUPA**

Dawa ya ziada kama haikutumika itupwe kwenye jaa lililoidhinishwa la kutupa madawa ya sumu ya kuangamiza magonjwa na wadudu waharibifu, ama izikwe mahali salama mbali na vyanzo vya maji. Usitumie chombo kilichokwisha dawa kwa matumizi mengine yoyote. Vyombo vilivyokwisha dawa vyapaswa kutupwa kwenye jaa la kutupa takataka za sumu, lililoidhinishwa au izikwe pahali salama mbali na vyanzo vya maji.

**IKIMWAGIKA**

Ondoa mchanga wa juu uliongia dawa na uuzike pahali salama mbali na vyanzo vya maji.

***Ikimwagika:*** Inyonye kwa kuimwagia mchanga, unga wa mbao, udongo au kifaa cha kuinasa. Kusanya kwa makini vitu vilivyo ingia dawa na uvizike pahali salama ama tupa ndani ya pipa au mifuko ya plastiki, weka alama na utupe ndani ya shimo la kutupa madawa ya sumu lililoidhinishwa. Choma unga wa mbao ulioingia dawa mbali na makazi ya watu. Safisha kwa maji eneo lililomwagikiwa na dawa. Dawa iliyomwagika isutumiwe tena.

**MAZINGIRA NA MBUGA ZA WANYAMA**

Ni sumu kwa samaki na viumbe vya majini visivyo na uti wa mgongo. Usichafue njia za maji kwa kutupa ndani uchafu wa dawa. Weka mifugo mbali na maeneo yaliyowekwa dawa. twigamehalin haiwadhuru wadudu wenye manufaa kama vile nyuki ikiwa itatumiwa kulingana na kiasi kilichopenedezwa.

**MAAGIZO YA HUDUMA YA KWANZA**

***Ikiwa imeingia ndani ya macho:*** Osha macho na maji mengi kwa angalau dakika 15. Ikiwa mwasho utaendelea, wasiliana na daktari mara moja.

***Ikiwa imegusa ngozi:*** Osha ngozi ilio ingia dawa kwa sabuni na maji mengi. Toa nguo zilizomwagikiwa na dawa. Ikiwa mwasho wa ngozi utaendelea, onana na daktari mara moja.

***Ikiwa mvuke wa dawa hii umevutwa ndani ya mapafu:*** Mwondoe mgonjwa kutoka kwenye eneo lililo na sumu na umweke mgonjwa mahali penye hewa safi na umpe usaidizi wa kupumua. Mweke kwenye joto la kadiri na katika hali ya kupumzika. Pata ushauri wa daktari.

***Kama imemezwa:*** Ipunguze nguvu ya dawa iliyomezwa haraka kwa kumnywesha mgonjwa maji mengi. Mfanye atapike kwa uangalifu ili kuzuia matapiko kuingia kwenye mapafu. Kamwe usimlishe mtu aliyepoteza fahamu kitu chochote kupitia mdomoni. Muone daktari haraka.

**MAELEZO YA SUMU**

***Dalili ya sumu***: Hakuna dalili maalum. Hata hivyo, baada ya dawa kumezwa, kutatokea kutapika, kuenda kwa choo iliyo na unyevunyevu, kuumwa kwa tumbo, mtetemeko wa kadri wa mwili na kupumua kwa haraka haraka.

***Dawa ya kuvunja nguvu za sumu***

Hakuna dawa maalum inayojulikana ya kuvunja nguvu za sumu hii.

***Maelezo kwa daktari***

Tibu kulingana na dalili na kupatiana matibabu ya PELEKA MJERUHI KWA DAKTARI

**Piga simu isiyo na malipo wakati wa dharura: 0800720021 na 0800730030 (masaa 24)**

**ILANI KWA MTUMIAJI**

Dawa hii ni sharti kutumiwa kulingana na maagizo yaliyo kwenye kibandiko. Ni hatia chini ya sheria za madawa kutumia au kuweka dawa hii katika hali isiyofaa.

**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.