

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

Nemasol

Water miscible liquid

A soil fumigant for the control of soil fungi and nematodes in agricultural soils and seedbeds

(Dawa ya mvuke ya kunyunyizia mchangani kwa kuzuia vimelea /ukungu, viwavi katika ardhi ya kilimo na bustani za mbegu.

RESTRICTED CLASS (KUNDI LILILOWEKEWA VIKWAZO)

REGISTRATION NO. : PCPB (CR) 0357
(NAMBARI YA USAJILI)

GUARANTEE: METAM SODIUM 510gm/L
(DHAMANA)

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



Soil Fumigation



Soil Aeration



Seedbed

SHELF LIFE: 2 years from date of manufacture if stored in original, unopened container stored in a cool dry well ventilated place.

MAISHA RAFUNI: Miaka miwili baada ya tarehe ya kutengenezwa ikihifadhiwa kwenye chombo chake halisi kisichofunguliwa na kilichowekwa pahali pakavu na penye baridi.

Danger/Sumu



**Flammable /
Yaweza kuwaka**



**Corrosive /inaweza
kuchoma**



Toxic if inhaled



Very toxic to aquatic life

DATE OF MANUFACTURE (TAREHE YA KUTENGENEZWA)	BATCH NO.: (NA NAMBARI YA KIFURUSHI)

In case of an emergency, call Toll free Nos: 0800720021 and 0800730030 (24hrs)
(Wakati wa dharura, piga simu bila malipo)

MEMBER OF
AGROCHEMICALS
ASSOCIATION OF KENYA
REGISTRATION NUMBER 102

NET CONTENT /KIASI: 60 LITRES (Lita 60)

TAMINCO
Crop Protection

DISTRIBUTOR (MSAMBASAJI) IN KENYA:-
TWIGA CHEMICAL INDUSTRIES LTD
P O BOX 30172-00100, GPO NAIROBI - KENYA
TEL: +254(020)- 3942000
FAX: +254(020)- 3942405



**MANUFACTURER
(MTENGENEZAJI)**
TAMINCO NV
Pantserschipstraat 207
9000 Ghent - Belgium



TOXIC

HATARI

RESTRICTED USE (WHERE APPLICABLE)

DESCRIPTION OF THE PRODUCT

NEMASOL is a soil disinfectant which gives effective control of fungi and nematodes prior to crop seeding or planting. When it comes into contact with wet soil, metam sodium decomposes into methyl iso thiocyanate, a gas which is the active substance. Metam Sodium acts quickly after application, decomposes and does not damage or leave residue in the planted field.

DIRECTION FOR USE

NEMASOL is a water miscible soil fumigant and is applied by drenching infected soils. Do not apply NEMASOL when soil temperature are below 10°C. For optimal efficacy, apply when soil temperatures are between 10°C and 25°C. Sub-optimal efficacy of NEMASOL may occur on turf soils due to insufficient water penetration and soils with high organic matter content (high absorption coefficient).

Pre-treatment preparations: Prepare the surface to be treated up to a depth of 40-50 cm and remove undecayed organic matter. Bring soil moisture to field capacity and at least 14 days before application and keep the soil moist up to application time.

Post-treatment procedure: To prevent excessive evaporation, seal treated areas with either follow-up irrigation or plastic sheet Aerate treated area thoroughly. 2-3 weeks after application by cultivating the soil. Lower soil temperatures (less than 16°C) and soils with clay and organic matter content will retain more NEMASOL and therefore require a longer waiting period.

ENSURE THE TREATED AREA IS READY FOR USE BY CONDUCTING GERMINATION TEST.

Application:- Recommended amount of NEMASOL should be applied to ensure uniform distribution after the full area to be treated (see methods of application)

RATES OF APPLICATION

SOIL PATHOGENS /PESTS		RATE (ml/per 20L)	RATE (L/HA)
Soil Fungi	Fusarium, Pythium, Rhizoctonia, Pyrenochaeta, Sclerotium spp.	13-18	650-900
Nematods	Meloidogyne spp, Pratylenchus spp, Trichodorus spp,	13-18	650-900

Re-entry Period - 48 hours.

USE LIMITATIONS

Do not treat within 5m of existing trees and field crops.

METHODS OF APPLICATION

1. SPRINKLER SYSTEM

Inject required amount of NEMASOL into the system via a tank mix. Application should be directly from the hydrant using a non-return valve. Ensure injection of NEMASOL occurs over the full irrigation period. Only apply under conditions that ensure even distribution over treated areas. Careful supervision is essential. Keep treated area moist by applying follow-up irrigation for 1 week after treatment. On light soils (<5% clay) where surface sealing with follow-up irrigation is difficult to obtain and suboptimal efficacy may result, the use of plastic sheeting is recommended.

See post application procedure

2. SEEDBEDS

Seedbeds and small surfaces can best be treated by means of watering can. Make seedbeds prior to treatment. Drench the soil thoroughly using one litre of NEMASOL in minimum of 10 litres of water per 10 square meters. Preferably treat the total area to minimise contamination from untreated areas. Adhere strictly to directions for use on soil preparation.

To obtain optimum efficacy, the treated area surface must be sealed to prevent the gas from escaping either by Drench with further irrigation (4-5 mm water/ha). Keep area moist with follow-up irrigation for 1 week after treatment. Cover with a plastic sheet. The cover need not be tainted.

Remove cover after 3 days.

3. PLANTING HOLE TREATMENT

Prepare a dam around planting hole (approx. 2m x 2m) with a wall of 10cm in height. Half fill the dam with water and then apply NEMASOL at the rate of 100ml. per square meter over the surface. Fill up immediately to full capacity with water. (see post application procedure)

4. GROWING MEDIA AND POTTING SOIL

Media should be moistened with NEMASOL solution using a watering can whilst mixing continuously. The use of a cement mixer is ideal for this purpose. Cover treated soil with a plastic sheet to prevent gases from escape. Remove cover after 3 days

WATER PERIOD

In Temperature conditions, a safety period of 10-14 days is allowed as in low temperature conditions a safety of 3-4 weeks should be allowed.

HAZARDS

- Harmful by ingestion.
- Consumption of alcohol increases toxic effect
- Corrosive liquid, harmful by dermal and oral uptake.
- The product is toxic to aquatic organisms.

HANDLING PRECAUTIONS

- Handle and open container with care
- Do not breath vapour spray
- Do not smoke, drink or eat while using this product
- Wear eye/face protection. The liquid can damage your eyes.
- Do not inhale . Wear a mask covering nose and mouth. Wear rubber gloves and boots. The liquid can irritate your skin.
- Use respirator when working in a confined area. Ventilate confined areas thoroughly during use.

Safety after work: Wash yourself and thoroughly was your work clothes. Do not enter the treated areas until there is no signs of fumes being emitted.

When applying: Do not apply in glass houses with crops, or where fumes may penetrate adjoining premises with growing plants.

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. Metam sodium is a combustible liquid. Avoid exposure to direct sunlight. Do not smoke nor store the product above 35°C. When heated, metam sodium decomposes to give toxic and flammable fumes. The product crystallines at lower temperatures.

DISPOSAL

This material and/or its container must be disposed off as hazardous waste Do not discharge into drains or the environment; dispose to an authorized waste collection point or only in special, controlled high temperature incinerators.

SPILLAGE AND LEAKAGE

Wear protective clothing consisting of air-supplied respirators, impervious clothing and safety goggles when dealing with spillages and leakages. Adequate ventilation is also required. Remove contaminated soil layer and bury in a safe place away from water sources.

Spillage: Soak up with sand, sawdust, soil or binding agent, collect the contaminated material thoroughly and bury in a safe place or put it in a waste bin or a plastic bag, mark it and dispose off on a landfill site approved for pesticides, clean spilled area with plenty of water. Spilt product must not be re-used. Keep out of drains and water sources.

ENVIRONMENT AND WILDLIFE

Toxic to fish and other aquatic organisms. Do not contaminate water supplies by disposal of product waste. Keep livestock out of treated areas for at least 21 days after removal of the sealing material in the field

FIRST AID INSTRUCTIONS

If poisoning is suspected, call a physician immediately.

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: Immediately dilute the swallowed product by giving large quantities of water, But DO NOT INDUCE VOMITING. If vomiting occurs, give fluids again. Never give anything by mouth to an unconscious person. Contact a physician immediately.

TOXICOLOGICAL INFORMATION

Symptoms of poisoning: Abdominal cramps, vomiting, nausea and local mucosal irritation.

Antidote:- No specific antidote is known. Apply symptomatic therapy.

Notes to the Physician:- Incase of ingestion, induce vomiting, perform gastric lavage and administer saline purgatives, contra-indications do not give alcohol. Treat symptomatically.

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.

MATUMIZI KWA MASHARTI (PANAPO HAJA)

NEMASOL ni dawa ya mvuke inayozuia vimelea/ukungu na viwavi. Matam Sodium inafanya kazi haraka baada ya kutumiwa na haiwachi mabaki mchangani. Ikgusana na mchanga ambao una unyevu huvunjika na hutoa gesi ya Methyl Iso thiocyanate ambayo ndiyo hufanya kazi.

JINSI YA MATUMIZI

NEMASOL ni dawa ya mvuke ya kunyunyiza mchangani inayoweza kuchanganywa na maji. Na inaweza kutumika kwa urahisi kwa woveshwa ama kumwagia maji ardhi iliathiriwa na magonjwa. Usitumie dawa ya NEMASOL wakati kipimo cha joto cha mchanga kiko chini ya nyusi 10 (centigrade 10°C) kwa matokeo mazuri tumia wakati joto la mchanga liko kati ya nyuzi 10 na 25

Matokeo ya chini ya dawa ya NEMASOL huenda yakatokea kwenye udongo uliyoshikana na majani mengi kwa sababu ya maji kushindwa kupenya vizuri na udongo ulio changanyika na sehemu kubwa ya majani iliooza (kiwango cha juu cha kumweza kupitisha maji)

Matayarisho kabla ya matumizi

Tayarisha eneo unalohitaji kunyunyiza dawa kufikia kiwango kile cha kupanda mbegu au miche kwa kipimo cha centimita 40 hadi 50 na uondoe majani yote ambayo hayajaoza

Fanya hali ya unyevu maru... kiwango iwe kama ule wa shamabani angalau siku 1 kabla na uendelee hadi wakati kuanza matumizi.

Utaratibu baada ya matumizi

plastiki ingiza hewa kukauka zaidi kwa maeneo yaliyowekwa dawa kunyunyizia maji au kwa mchanda.

KISHA ENEO LILLOWEKWA MATUMIZI KWA KUFANYA MAJARIBU

Matumizi: Kiwango kilichopendekezwa ni kuhakikisha kwamba eneo lote lina hewa cha dawa (angalia upande huo)

KIWANGO CHA MATUMIZI KIMELEA WADUDU

KWEKWE	Aina vya vimelea na viwavi mchangani	Kiasi (Mililita Kwa Lita 20)	Kiasi (L/Hektari)
Soil fungi	<i>Fusarium, Pythium, Rhizoctonia, Pyrenochaeta, Sclerotium spp.,</i>	13-18	650-900
Nematode	<i>Meloidogyne spp., Pratylenchus spp., Trichodorus spp.,</i>	13-18	650-900

Muda kabla ya kuingia: masaa 48

MATUMIZI NA JINSI YA KUTUMIA

1. KUNYUNYIZIA

Ingiza kiasi kinachohitajika cha NEMASOL kupitia tangi la kuchanganyia. Unatakiwa kutumia moja kwa kutoka kwa bomba la maji ukitumia "valve" ya kwenda upande mmoja tu. Hakikisha uingizaji wa NEMASOL unafika katika kipindi chote cha unyunyizaji sawa sawa kwenye eneo lote linalohitaji kuwekwa dawa. Usimamiaji wa makini ni muhimu. Weka eneo lilowekwa dawa, chepe chepe kwa kunyunyizia maji kwa wiki moja baada ya kutumia dawa. Kwa mchanga hafifu ambao ni vigumu kufunga sehemu ya kunyunyizia maji na ambapo matokeo ya chini hupatikana matumizi ya plastiki yanapendekezwa angalia sehemu ya utaratibu baada ya matumizi.

2. BUSTANI YA MBEGU

Bustani za mbegu na maeneo madogo yaweza kunyunyiziwa vizuri kwa kutumia mtungi wa kunyunyiza maji. Tayarisha bustani za mbegu kabla kunyunyiza dawa. Lowesha udongo na maji kabisa ukitumia lita moja ya NEMASOL ndani ya angalau lita 10 za maji kwa kila mita 10 mraba.

Ni vizuri kutibu eneo lote ili kupunguza uambukizana kutoka kwenye sehemu ambazo hazikutibiwa. Fuata kwa makini maelizo ya matumizi ya matayarisho ya udongoni. Kupata matokeo mazuri ya uwezo wa dawa, eneo ilionyunyizwa dawa, lazima ifunikwe ili kuzuia mvuke wa gesi kutoweka kwa :

- Lowesha na maji ya zaidi ya kunyunyiza maji mililita 4-5 kwa hektari kwa baada ya kutumia dawa.
- Funika kwa chandarua ya plastiki kwa wiki moja kama hema. Ondoa mfuniko. Angalia sehemu ya utaratibu baada ya matumizi.

3. TIBA KWENYE SHIMO LA UPANZI

Jenga kidimbwi kuzunguka shimo (tibu mita mbili mraba) kilicho na ukuta jaze kidimbwe kufikia nusu kwa maji, na kisha weka kiwango cha mililita 100 kwa mita mraba cha dawa juu ya maji. Baada ya kijaze kidimbwi kwa maji. Angalia sehemu ya utaratibu baada ya matumizi.

4. SAKAFU YA KUMELEA NA UDONGO WAKUPANDIA KWENYE VYUNGU

Iloweshe sakafu ya kumelea kwa maji yenye dawa ya NEMASOL huku ukiwa unaendelea kukoroga dawa. Mtambo wa kuchanganyia simiti na kokoto unafaa zaidi kwa shuguli hii. Tumia mililita 650 hadi 900 NEMASOL kwa kubiki meter moja ya udongo ukitumia lita 30 hadi 50 za maji. Funika udongo uliyotiwa dawa kwa chandarua (makaratasi) ya plastiki ili kuzuia mvuke wa dawa. Ondoa makaratasi haya baada ya siku 3.

KIPINDI CHA KUNGOJEA

Katika hali ya joto la juu, kipindi salama cha siku 10 kinaruhusiwa ili hali katika hali ya joto la chini, kipindi salama cha wiki 3 hadi 4 kinaruhusiwa.

TAHADHARI WAKATI WA MATUMIZI

Usivute sigara, usinywe wala usile wakati unatumia dawa hii. Vaa glovu za mkono na gambuti za raba. Dawa hii inaweza kuwashaha ngozi yako. Usivute ndani hewa ya mvuke wa dawa hii. Vaa kifuniko cha pua na mikono (kinyago). Tumia chombo cha kuvutia hewa (respirator) ikiwa unafanya kazi ndani ya chumba kilicho fungwa. Pitisha hewa nyingi katika chumba unapo fanya kazi. **Usalaama baada ya kazi:** Oga na uoshe vizuri nguo ya kazi. Usirudi eneo lililo nyunyuziwa hadi umehakikisha ya kuwa dalili ya mvuke wa dawa zimeisha. Usinyunyize ndani ya nyumba za vioo na mimea iliyo hai, ama ambapo, mvuke wa dawa unaweza vyumba vyengine vyenye mimea inayokua.

KUHIFADHI

Hifadhi ndani ya chombo chake halisi kilicho fungwa vizuri, mbali na watoto, chakula, vinywaji na chakula cha mifugo. Hifadhi dawa ... mbali baridi, pakavu na panapopitisha hewa safi, na palipo na kufuli. Epuka kuweka kwenye mwangaza wa jua. Dawa hii hushikana ikiwa kwenye hali ya joto chini.

KUWEKA

Ziada kama haikutumika itupwe kwenye jaa lililohalishwa na dawa ya sumu ya kuangamiza wadudu waharibifu kama ... hali salama mbali na vyanzo vya maji. Usitumie vyovyote ... kwisha dawa. Ni sharti vyombo hivi kutobolwe na kut... aa la kutupa takataka, lililohidhinishwa au zika na .. mbali na vyanzo vya maji.

Kumwagika na kuvuja

Tumia mavazi ya kinga kama, kinga ya kupumuwa ovaroli ngumu na 'goggles' inapomwagika dawa. Pahali hapo pawe na hewa yakutosha

Ondoa mchanga wa juu ulioingia dawa na uzike pahali mbali na vyanzo vya maji. **Ukimwagika:** Inyonye kwa kuimwagia mchanga wa unga , udongo au kifaa cha kuinasa. Kusanya kwa makini vitu vilivyo mwagika dawa halafu kuvizika au kuviweka ndani ya pipa la uchafu wa plastiki uliowekwa alama na safisha kwa maji mengi kisha kutupa kwenye jaa la kutupia takataka za madawa ya sumu mengi eneo lililomwagikiwa na dawa. Dawa iliyomwagika isitumiwe tena.

MAZINGIRA NA MAISHA YA PORINI

Ni sumu kwa samaki. Usichafue njia za maji kwa kutupa .. lani uchafu wa dawa. Weka mifugo mbali na maeneo yaliyo wekwa dawa.

MAAGIZO YA HUDUMA YA KWANZA

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

Ikiwa imeguza ngozi: Osha ngozi iliyoguswa na dawa kwa sabuni na maji mengi. Toa nguo zilizomwagikiwa na dawa. Ikiwa mwasho wa ngozi utaendelea, onana na daktari mara moja.

Ikiwa imevutwa ndani: Muondoe mgonjwa kutoka kwenye eneo lililo na sumu na umweke mgonjwa mahali penye hewa safi.

Kama imemezwa: Ipunguze nguvu dawa iliyomezwa mara moja kwa kumnywe-sha mgonjwa maji mengi. LAKINI USIMFANYE ATAPIKE. Ikiwa atapatika mpe maji tena. Kamwe usimlishe mtu aliyepoteza fahamu kitu chochote kupitia mdomoni. Peleka majeruhi kwa daktari haraka.

MAELEZO YA SUMU

Dalili za sumu: Maumivu ya tumbo, kutapika, kuchafuka moyo na mwasho wa ngozi.

Maelezo kwa daktari: *Incase of ingestion, induce vomiting, perform gastric lavage and administer saline purgatives, intra-indications do not give alcohol.* Tibu kulingana na vile anavyojisikia.

Dawa ya kuvunja nguvu za sumu.

Hakuna dawa maalum inayojulikana ya kuvunja nguvu za sumu hii. Tibu kulingana na dalili.

Wakati wa dharura, piga simu bila malipo: 0800720021 na 0800730030 (masaa 24)

ILANI K WA MTUMIAJI

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

THIBITISHO

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