PIC PLUS

Soil Fumigant / Grondberokingsmiddel

Reg. No. / Nr. L9554 Act No. 36 of 1947 / Wet Nr. 36 van 1947

READ THE LABEL BEFORE USE / LEES DIE ETIKET VOOR GEBRUIK

KEEP OUT OF REACH OF CHILDREN AND ANIMALS / HOU BUITE BEREIK VAN KINDERS EN DIERE

GROUP	3	11	FUNGICIDES

Pic Plus is a ready-to-use broad spectrum liquid soil fumigant for the pre-plant treatment of soil to control soil-borne pests. **FOR USE BY REGISTERED PEST CONTROL OPERATORS ONLY.**	**Pic Plus** is 'n gereed-vir-gebruik, breëspektrum, vloeibare grondberokingsmiddel vir die voor-plant behandeling van grond om grondgedraagte peste te beheer. **SLEGS VIR GEBRUIK DEUR GEREGISTREERDE PLAAGBEHEEROPERATEURS.**

SIGNAL WORD:

DANGER

GHS CLASSIFICATION FOR PRODUCT:

ADDITIONAL GHS CLASSIFICATION FOR PRODUCT WHEN IT IS UNDER PRESSURE IN CYLINDER:

GHS HAZARD STATEMENTS

- Fatal if inhaled.
- Toxic if swallowed.
- Harmful in contact with skin.
- Causes skin irritation.
- Causes serious eye damage. [liquid contact]
- Causes serious eye irritation. [vapour contact]
- May cause an allergic skin reaction.
- Causes damage to respiratory system and hemal system by inhalation.
- Causes damage to respiratory system, hemal system, and liver through prolonged or repeated exposure.
- Very toxic to aquatic life with long lasting effects.

ADDITIONAL GHS HAZARD STATEMENT WHEN PRODUCT IS UNDER PRESSURE IN CYLINDER

- Chemical under pressure: May explode if heated.

GHS PRECAUTIONARY STATEMENTS

PREVENTION

- Do not breathe gas or vapours.
- Do not get in eyes, on skin, or on clothing.
- Wash hands and face thoroughly after handling. Do not touch eyes.
- Use only outdoors or in a well-ventilated area.
- Wear protective gloves, protective clothing, eye/face and respiratory protection.
- Do not eat, drink, or smoke when using this product.
- Contaminated work clothing should not be allowed out of the workplace.
- Avoid release to the environment, [except for ~~intended~~ authorised use].

RESPONSE (FIRST AID)

- **IF INHALED**: Remove person to fresh air and keep comfortable for breathing. Get emergency medical help immediately. Specific treatment is urgent (see Section 4 of SDS).
- **IF IN EYES**: Immediately rinse with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Get emergency medical help immediately [for liquid

contact]. [For vapor contact], if eye irritation persists: Get medical help.

- **IF ON SKIN**: Take off contaminated clothing. Wash with plenty of water. Get medical help. If skin irritation or rash occurs: Get medical help. Wash contaminated clothing before reuse.
- **IF SWALLOWED**: Get emergency medical help immediately. [Dab material from mouth with dry cloth first, if possible] Rinse mouth. Do NOT induce vomiting.
- **IF** exposed or concerned: Get emergency medical help immediately.
- Get medical help if you feel unwell.

STORAGE

- Store in a well-ventilated place.
- Keep container tightly closed.
- Store locked up.

DISPOSAL

- Collect spillage.
- Dispose of contents and container in accordance with government regulations.

ADDITIONAL PRECAUTIONARY STATEMENTS FOR PRODUCT WHEN IT IS UNDER PRESSURE IN CYLINDER

- Closed cylinders may rupture or burst if heated by fire.
- Keep away from heat/open flames.
- Store away from combustible materials.
- Stop leak if safe to do so.
- In case of fire: Evacuate area. Fight fire remotely due to the risk of cylinder rupture.

ACTIVE INGREDIENT: Chloropicrin (trichloronitromethane) . . . . 855 g/kg
AKTIEWE BESTANDDEEL: Chloropikrien (trichloronitrometaan) . . . . 855 g/kg

Net mass / Netto massa: .... (80, 90, 136, 280, 596, 75-280) kg

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Batch No. / Lot Nr. : ....
Date of Manufacture / Datum van Vervaardiging : ....
Expiry date / Vervaldatum : ....

UN No. / VN Nr. :

1580

DISCLAIMER: 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 SOIL, CLIMATIC AND STORAGE CONDITIONS, QUALITY OF DILUTION WATER, COMPATIBILITY WITH OTHER SUBSTANCES NOT INDICATED ON THE LABEL AND THE OCCURRENCE OF RESISTANCE OF THE PESTS AGAINST THE REMEDY CONCERNED, AS WELL AS BY THE METHOD, TIME AND ACCURACY OF APPLICATION. THE REGISTRATION HOLDER FURTHERMORE DOES NOT ACCEPT RESPONSIBILITY FOR DAMAGE 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.

ADDITIONAL PRECAUTIONS:

- This fumigant is a highly hazardous material and must be handled by certified applicators or persons under their direct supervision who are trained with its proper use.
- Remove clothing immediately if pesticide gets on clothing; then wash thoroughly and put on clean clothing. Wash all contaminated clothing with soap and hot water before reuse.
- After handling, wash hands before eating, drinking, chewing gum, using tobacco, or using the toilet.
- When performing tasks with NO potential for contact with liquid fumigant handlers/applicators must wear long-sleeved shirt and long pants plus shoes and socks.
- When performing tasks with potential for contact with liquid fumigant, handlers/applicators must wear a long-sleeved shirt and long pants, chemical-resistant gloves, a chemical-resistant apron, and protective eyewear (DO NOT wear goggles), plus chemical-resistant footwear with socks.
- If a handler/applicator experiences sensory irritation (tearing or burning of the eyes or nose), an approved respirator must be worn.
- DO NOT use containers or application equipment made of copper, magnesium, aluminium, or their alloys, as this fumigant may be corrosive to such metals.
- DO NOT use water to clean equipment; use diesel oil.
- Return all empty or partially used containers to registrant or distributor; DO NOT use for any other purpose.

RELEVANT SUBSTANCE(S):

Chemical Identity of Component	Synonym(s)	CAS Number	Concentration by weight %
Chloropicrin	Trichloronitromethane	76-06-2	86.0
Distillates (Petroleum), Hydrotreated Light	Solvent	64742-47-8	14.0

SYMPTOMS OF HUMAN POISONING:

Early symptoms of overexposure are lachrymation, respiratory distress, and vomiting. Pulmonary edema may develop later.

IN ALL CASES OF OVEREXPOSURE, GET MEDICAL ATTENTION IMMEDIATELY. TAKE PERSON TO A DOCTOR OR TO AN EMERGENCY TREATMENT FACILITY.

NOTES TO PHYSICIAN: No specific antidote known. Treat symptomatically. Product contains petroleum distillates. Vomiting may cause aspiration pneumonia.

USE RESTRICTIONS:

- DO NOT use when soil temperature is below 5°C.
- DO NOT use when soil temperature is above 30°C.
- DO NOT apply during unfavorable weather conditions. [Unfavorable weather conditions block upward movement of air, which results in trapping fumigant vapors near the ground. The resulting air mass can move off-site in unpredictable directions. These conditions typically exist within an hour prior to sunset and continue past sunrise and may persist as late as noontime. Unfavorable conditions are common on nights with limited cloud cover and light to no wind and their presence can be indicated by ground fog or smog and can also be identified by smoke from a ground source that flattens out below a ceiling layer and moves laterally in a concentrated cloud.]
- DO NOT fumigate when soil is very wet or very dry.
- DO NOT fumigate soils with greater than 25% clay content.

- DO NOT fumigate within 50 cm of roots of desirable vegetation.
- DO NOT plant or sow for at least 10 days after removal of polyethylene sheeting (plastic fumigation film), if used.
- DO NOT plant or sow if odour is present.
- RE-ENTRY INTERVAL – Entry by unauthorized persons into the application block is prohibited from the start of the application until 5 days after the application is complete.

MODE OF ACTION: Direct toxicity to soil organisms, fungi, bacteria, insects and plants/seeds.

DIRECTIONS FOR USE – Use only as directed.

SOIL PREPARATION:
For best results, the area to be fumigated should be tilled to a depth of 13 to 20 cm. The surface should be generally free of large clods.

SOIL MOISTURE:
The soil should have sufficient moisture to support seed germination (50 to 75% available water capacity*). Soil moisture can be adjusted by disking or plowing before the start of the application. To conserve existing soil moisture, pretreatment irrigation or pretreatment tillage should be done as close to the start of the application as possible.
*****The USDA Feel and Appearance Method for estimating soil moisture as appropriate for the soil texture:

- For **coarse** textured soils (fine sand and loamy fine sand), the soil is moist enough (50 to 75% available water capacity) to form a weak ball with loose and clustered sand grains on fingers, darkened color, moderate water staining on fingers, will not ribbon.
- For **moderately coarse** textured soils (sandy loam and fine sandy loam), the soil is moist enough (50 to 75% available water capacity) to form a ball with defined finger marks, very light soil/water staining on fingers, darkened color will not stick.
- For **medium** textured soils (sandy clay loam, loam, and silt loam), the soil is moist enough (50 to 75% available water capacity) to form a ball, very light staining on fingers, darkened color, pliable, and forms a weak ribbon between the thumb and forefinger.
- For **fine** textured soils (clay, clay loam, and silty clay loam), the soil is moist enough (50 to 75% available water capacity) to form a smooth ball with defined finger marks, light soil/water staining on fingers, ribbons between thumb and forefinger.
- For **fields with more than one soil texture**, soil moisture content in the lightest textured (most sandy) areas must comply with this soil moisture requirement. Whenever possible, the field should be divided into areas of similar soil texture and the soil moisture of each area should be adjusted as needed. Coarser textured soils can be fumigated under conditions of higher soil moisture than finer textured soils; however, if the soil moisture is too high, fumigant movement will be retarded and effectiveness of the treatment will be reduced. Previous and/or local experience with the soil to be treated or the crop to be planted can often serve as a guide to conditions that will be acceptable. If there is uncertainty in determining the soil moisture content of the area to be treated, a local extension service agent, soil conservationist, or pest control advisor (agriculture consultant) should be consulted for assistance.

APPLICATION METHODS AND EQUIPMENT:

- Apply PIC PLUS SOIL FUMIGANT via shank (chisel) injection rig or switch plow.
- Before fumigation, be sure that the application equipment is properly calibrated.
- For shallow (injection depth 20 to 40 cm) broadcast work, use a shank spacing of 25 to 30 cm.
- For deep-rooted plants, deep application is advisable. For deep applications (injection depth 40-45 cm), a shank spacing of up to 60 cm may be used; however, it is recommended that the shank spacing not exceed 45 cm.

APPLICATION DEPTH:

- Tarped bed and broadcast: The injection point should be a minimum of 20 cm from the nearest final soil/air interface (i.e., top of bed, for bed applications).
- Un-tarped bed: The injection point should be a minimum of 30 cm from the nearest final soil/air interface.
- Un-tarped broadcast: The injection point should be a minimum of 30 cm from the nearest final soil/air interface.
- Un-tarped deep broadcast: The injection point should be 40-45 cm from the nearest final soil/air interface.

SOIL SEALING:
Sealing the soil after application is very important. The soil should be sealed immediately after injection. There are various methods to seal the surface of the soil, as follows:

- For shallow (injection depth 20 to 40 cm) broadcast and/or wide-bed applications, the soil should be sealed with polyethylene sheeting (plastic fumigation film/tarp).
- For deep applications (injection depth 40-45 cm), seal with polyethylene sheeting or by means of a disk followed by a roller, cultipacker, or similar equipment.
- For row and/or narrow-bed applications, sealing can be accomplished with polyethylene sheeting or by use of a bed press, ring roller, or similar equipment.
- For un-tarped applications, the soil surface should be capped with irrigation, by saturating the top 20 mm of soil with water. Repeated irrigation may be required during the treatment period, to reduce cracking of the soil cap.

EXPOSURE PERIOD:
If used, the polyethylene sheeting may be removed after 5 days. For all other seals, leave the soil undisturbed for 7 days before cultivating to aerate the soil. Cold and/or wet soil conditions will require a longer exposure period. Do not cultivate the soil if it is too wet for proper tillage.

DAYS TO PLANTING:
For applications where the soil has been sealed with polyethylene sheeting, do not plant for at least 10 days after the film has been removed. For all other seals, do not plant for 7 days after the initial cultivation. Longer aeration periods may be required if soils are wet, cold, or heavy (high clay/silt content).

For all applications, DO NOT PLANT if odour is present. If odour is present after the aeration period, it may be necessary to cultivate the soil multiple times before planting or sowing. Break the crust of the soil, if necessary, by cultivating with a clean implement, thus allowing the soil to aerate.

FERTILIZATION:
Fumigation may temporarily raise the level of ammonia nitrogen and soluble salts in the soil. To avoid ammonia injury and/or nitrate starvation to crops, avoid using fertilizers containing ammonia salts and use only fertilizers containing nitrates until after the crop is well established and the soil temperature is about 20º C. Liming highly acid soils before fumigation stimulates nitrification and may also reduce the possibility of ammonia toxicity.

RECONTAMINATION:

- Avoid reinfestation of treated soil. Do not use transplants, tools, or crop remains infested with soil-borne plant parasitic pests and weed seeds. Clean application equipment carefully before and after use.
- Do not contaminate fumigated areas by walking from unfumigated to fumigated soil.
- If the treated area is in a location where flooding or washing is possible after rains, plow a furrow or make a trench around it for proper drainage.

DOSAGE / RATE TABLE
PIC PLUS SOIL FUMIGANT

CROP	PROBLEM / PEST	DOSAGE	REMARKS
ANNUAL CROPS Including: Potatoes, Vegetables, and Tobacco	Soil-borne fungal diseases, including species of: *Verticillium* and *Fusarium* wilts *Pythium* *Phytophthora* *Sclerotium* Bacterial wilts, including: *Streptomyces scabies*	200 to 690 kg/ha	Pre-plant soil fumigation. Use lower rates on lighter soils. (< 10% clay, such as sand or sandy loam) Use higher rates on heavier soils. (10-25% clay, such as silt or clay loam)
PERENNIAL CROPS Fruit Trees Strawberries			

	(Potato Scab) Wireworms Nematodes Insects		

CONTAINER STORAGE, HANDLING AND SHIPPING:
Store locked up in a well-ventilated place. Keep containers tightly closed. Store containers upright, secured to a rack or wall, to prevent tipping. DO NOT subject containers to rough handling or mechanical shock, such as dropping, bumping, dragging, or sliding. DO NOT use ropes, slings, hooks, tongs, or other similar handling devices for unloading containers. Transport containers using a hand truck, fork truck, or other device to which the containers can be firmly secured. Open containers only in a well-ventilated area. For cylinders, remove the valve protection bonnet and safety cap only when fumigant is about to be removed from the cylinder; then re-secure the bonnet and cap when the cylinder is not in use or is empty. For drums, the bung(s) must be kept secured in place when the drum is not in use. DO NOT ship containers without safety caps and valve protection bonnets or bungs secured.

SPILL AND LEAK PROCEDURES:
Evacuate everyone from the immediate area of the spill or leak. For entry into affected area to correct problems, wear the protective clothing and equipment described above. Move leaking or damaged containers outdoors or to an isolated location. Observe strict safety precautions. Work upwind, if possible. Allow spilled fumigant to evaporate or to absorb onto vermiculite, dry sand, earth, or similar absorbent material. Dispose of contaminated material on site or at an approved disposal facility. Only correctly trained and equipped handlers are permitted to perform such cleanup. DO NOT permit entry into the spill or leak area by any other person until the concentration of chloropicrin is measured to be 0.15 ppm or less.

FOR CHEMICAL EMERGENCY (Spill, Leak, Fire, Exposure, or Accident),
Call CHEMTREC: 0-800-983-611 (24 hours)

[Afrikaans text below]

VRYWARING: 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, VERENIGBAARHEID MET ANDER STOWWE WAT NIE OP DIE ETIKET AANGEDUI IS NIE EN DIE VOORKOMS VAN WEERSTAND VAN DIE PESTE TEEN DIE BETROKKE MIDDEL, SOWEL AS DIE METODE, TYD EN AKKURAATHEID VAN TOEDIENING. VERDER AANVAAR DIE REGISTRASIEHOUER NIE VERANTWOORDELIKHEID VIR SKADE AAN GEWASSE, PLANTEGROEI OF DIE OMGEWING, OF VIR NADELIGE EFFEK OP MENS OF DIER, OF VIR GEBREK AAN PRESTASIE AS GEVOLG VAN DIE VERSUIM VAN 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 DIE GEVAL VAN ENIGE ONSEKERHEID.

GHS-GEVAARSTELLINGS:
- Dodelik indien ingeasem word.
- Giftig indien ingesluk.
- Skadelik in aanraking met vel.
- Veroorsaak velirritasie.
- Veroorsaak ernstige oogskade. [vloeibare kontak]
- Veroorsaak ernstige oogirritasie. [damp kontak]
- Mag allergiese velreaksie veroorsaak.
- Veroorsaak skade aan asemhalingstelsel en hemale stelsel deur inaseming.
- Veroorsaak skade aan asemhalingstelsel, hemale stelsel en lewer deur langdurige of herhaalde blootstelling.
- Baie giftig vir waterlewende organismes met landdurige gevolg.

BYKOMENDE GHS GEVAARVERKLARING WANNEER PRODUK ONDER DRUK IN SILINDER
- Chemies onder druk: Kan ontplof as dit verhit word.

GHS VOORSORGSTELLING:
VOORKOMING
- Moet nie die gas of dampe inasem nie.
- Moet nie in oë, op vel, of op klere laat kom nie.

- Was hande en gesig deeglik na hantering. Moet nie aan oë raak nie.
- Gebruik slegs buite of in 'n goed geventileerde area.
- Dra beskermende handskoene, beskermende klere, oog/gesig en asemhalingsbeskerming.
- Moet nie eet, drink of rook wanneer hierdie produk gebruik word nie.
- Besoedelde werksklere moet nie buite die werksplek toegelaat word nie.
- Vermy vrystelling in die omgewing, [behalwe vir gemagtigde gebruik].

REAKSIE (NOODHULP)
- **INDIEN INGESAEM:** Verwyder persoon na vars lug en hou gemaklik vir asemhaling. Kry onmiddellik mediese noodhulp. Spesifieke behandeling is dringend.
- **INDIEN IN OË:** Spoel dadelik versigtig uit met water vir etlik minute. Verwyder kontaklense, indien teenwoordig en maklik om te doen. Hoe aan met spoel. Kry onmiddellik mediese noodhulp [vir vloeistofkontak]. [Vir dampkontak], indien oogirritasie voortduur: Kry mediese hulp.
- **INDIEN OP DIE VEL:** Trek onmiddellik alle bosoedelde klere uit. Spoel onmiddelik met water vit etlik minute. Kry onmiddellik mediese noodhulp. Was gekontamineerde klere voor hergebruik.
- **INDIEN INGESLUK:** Kry onmiddellik mediese noodhulp. [Dep materiaal eers uit die mond met 'n droë lap, indien moontlik.] Spoel mond uit. Moet nie vomering induseer nie.
- **INDIEN** blootgestel of bekommerd: Kry onmiddellik mediese noodhulp.
- Kry mediese advies as jy onwel voel.

BERGING
- Berg in 'n goed geventileerde plek.
- Hou houer dig toe.
- Stoor toegesluit.

BEWYSING
- Versamel gemors.
- Gooi inhoud en houer weg in ooreenstemming met regeringsregulasies.

BYKOMENDE VOORSORGMAATREËLS WANNEER PRODUK ONDER DRUK IN SILINDER
- Geslote silinders kan skeur of bars as dit deur vuur verhit word.
- Hou weg van hitte, warm oppervlaktes, vonke, oop vlamme en ander ontstekingsbronne. Geen rook nie.
- Moet nie op 'n oop vlam of ander ontstekingsbron spuit nie.
- Bêre weg van brandbare materiale.
- In geval van lekkasie, skakel alle ontstekingsbronne uit.
- Stop lek as dit veilig is om dit te doen.
- In geval van brand: Ontruim area. Beveg vuur op 'n afstand weens die risiko van silinderbreuk.

BYKOMENDE VOORSORGMAATREëLS:
- Hierdie berokingsmiddel is 'n hoogs gevaarlike materiaal en moet hanteer word deur gesertifiseerde toedieners of persone onder hul direkte toesig wat opgelei is met die regte gebruik daarvan
- Verwyder klere onmiddellik indien plaagdoder op klere kom; was dan deeglik en trek skoon klere aan. Was alle gekontamineerde klere met seep en warm water voor hergebruik.
- Na hantering, was hande voordat jy eet, drink, kougom kou, tabak gebruik of die toilet gebruik.
- Wanneer take uitgevoer word met GEEN potensiaal vir kontak met vloeibare berokingsmiddel nie, moet hanteerders/toedieners langmouhemp en langbroeke plus skoene en sokkies dra.
- Wanneer take uitgevoer word met potensiaal vir kontak met vloeibare berokingsmiddel, moet hanteerders/toedieners 'n langmouhemp en langbroek, chemikaliebestande handskoene, 'n chemiese weerstandbiedende voorskoot en beskermende bril dra (MOENIE 'n bril dra nie), plus chemiese-weerstandbiedende skoene met sokkies.
- Indien 'n hanteerder/toediener sensoriese irritasie ervaar (skeur of brand van die oë of neus), moet 'n goedgekeurde respirator gedra word.
- MOENIE houers of toedieningstoerusting van koper, magnesium, aluminium of hul legerings gebruik nie, aangesien hierdie berokingsmiddel korrosief vir sulke metale kan wees.
- MOENIE water gebruik om toerusting skoon te maak nie; gebruik dieselolie.
- Besorg alle leë of gedeeltelik gebruikte houers aan geregistreerde of verspreider; MOENIE vir enige ander doel gebruik nie.

RELEVANTE STOF(TE):

Chemiese identiteit van komponent	Sinonieme(e)	CAS Nommer	Konsentrasie volgens gewig %
Chloropikrien	Trichloronitrometaan	76-06-2	86.0
Distillate (Petroleum) Hidrobehandelde lig	Oplosmiddle	64742-47-8	14.0

SIMPTOME VAN VERGIFTIGING
Vroeë simptome van oormatige blootstelling is tranerige oë, respiratoriese nood en braking. Oortollige vloeistof in die longe mag later ontwikkel.
IN ALLE GEVALLE VAN OORBLOOTSTELLING MOET MEDIESE HULP ONMIDDELLIK GEKRY WORD. NEEM DIE PERSOON NA 'N DOKTER OF NA 'N NOODGEVALLE-BEHANDELINGFASILITEIT.

NOTA AAN GENEESHEER
Geen spesifieke teenmiddel is bekend nie. Behandel volgens simptome. Die produk bevat gedistilleerde petroleum. Braking mag aspirasie pneumonie veroorsaak.

GEBRUIKSBEPERKINGS:
- MOENIE gebruik wanneer die grondtemperatuur laer as 5°C is nie.
- MOENIE gebruik wanneer die grondtemperatuur hoër as 30°C is nie.
- MOENIE toedien gedurende ongunstige weerstoestande nie. [Ongunstige weerstoestande blok die opwaartse beweging van lug, wat dan veroorsaak dat die berokingsmiddel se dampe naby aan die grond vasgevang word. Die gevolglike lugmassa kan vanaf die perseel in onvoorspelbare rigtings wegbeweeg. Hierdie toestande kom voor binne 'n uur voor sonsondergang, tot ná sonsopkoms, en mag voortduur tot so laat as namiddag. Ongunstige toestande is algemeen op aande met beperkte wolkbedekking en ligte tot geen wind. Hul teenwoordigheid kan aangedui word deur grondvog of mis en kan ook geïdentifiseer word deur rook van 'n grondbron wat sywaarts afdraai onder 'n "plafonlaag" en dan in 'n gekonsentreerde wolk sywaarts beweeg.]
- MOENIE berook wanneer die grond baie nat of baie droog is nie.
- MOENIE grond berook wat meer as 25% klei-inhoud het nie.
- MOENIE berook binne 50 cm vanaf wortels van gewenste plantegroei nie.
- MOENIE plant of saai vir ten minste 10 dae ná polistireenbedekking (plastiek berokingfilm) verwyder is nie, indien gebruik.
- MOENIE plant of saai indien daar steeds 'n reuk teenwoordig is nie.
- HERTOEGANGSINTERVAL – Betreding deur ongemagtigde persone aan die aansoekblok is verbied vanaf die begin van die aansoek tot 5 dae nadat die aansoek voltooi is.

MODE VAN AKSIE: Direkte toksisiteit vir grondorganismes, swamme, bakterieë, insekte en plante/sade.

GEBRUIKSAANWYSINGS - Gebruik slegs soos aangedui.

GRONDVOORBEREIDING:
Vir die beste resultate moet die area wat berook gaan word, bewerk word tot 'n diepte van 13 tot 20 cm. Die oppervlakte moet geen groot kluite hê nie.

GRONDVOGTIGHEID:
Die grond moet genoeg vog hê vir die ontkieming van sade (50 tot 75% beskikbare waterkapasiteit*). Grondvogtigheid kan aangepas word deur die grond om te ploeg of te sny-egvoor die begin van beroking. Om die huidige grondvogtigheid te behou moet voorbehandeling-besproeiing of voorbehandeling-bewerking toegepas word so na as moontlik aan die begin van beroking.
*Die VSDL Gevoel- en Voorkomsmetode vir die beraming van grondvogtigheid volgens die grondtekstuur:
- Vir **growwe** tekstuur grond (fyn sand en leemagtige fyn sand), is die grond klam genoeg (50 tot 75% beskikbare waterkapasiteit) om 'n sagte bal met los en klonterige sandkorrels op vingers te vorm, verdonkerde kleur, ligte watermerke op vingers, sal nie stringe vorm nie.

- Vir **matig growwe** tekstuur grond (sandleem en fyn sandleem), is die grond klam genoeg (50 tot 75% beskikbare waterkapasiteit) om 'n bal te vorm met definitiewe vingermerke, baie ligte grond-/watermerke op vingers, donkerder kleur sal nie vassit nie.
- Vir **medium** grondteksture (sanderige kleileem, leem, en slikleem), is die grond klam genoeg (50 tot 75% beskikbare waterkapasiteit) om 'n bal te vorm, baie ligte merke op die vingers, donkerder kleur, soepel, en vorm 'n sagte string tussen die duim en die voorvinger.
- Vir **fyner** grondteksture (klei, kleileem, en slikkleileem), is die grond klam genoeg (50 tot 75% beskikbare waterkapasiteit) om 'n gladde bal te vorm met definitiewe vingermerke, ligte grond-/watermerke op die vingers, stringe tussen die duim en die voorvinger.
- Vir **persele met meer as een tipe grondtekstuur**, moet die grondvog in areas met die ligste tekstuur (mees sanderige) ooreenstem met die grondvogtigheidsvereistes. Die perseel moet opgedeel word, waar moontlik, in areas met soortgelyke grondteksture en die grondvog van elke area moet aangepas word indien nodig. Grond met 'n growwer tekstuur kan berook word onder kondisies van hoër grondvog as grond met 'n fyner tekstuur. As die grondvog egter te hoog is sal dit die berokingsmiddel-beweging vertraag en sodoende die doeltreffendheid van die behandeling verminder. Vorige en/of plaaslike ondervinding met die grond wat behandel moet word of die gewas wat geplant moet word kan gebruik word as 'n gids vir kondisies wat aanvaarbaar sal wees. As daar enige onsekerheid is oor hoe om die voginhoud te bepaal van die area wat behandel moet word, moet 'n plaaslike uitbreidingsdiensagent, grondbewaarder, of 'n plaagbeheer-adviseur (landboukonsultant) geraadpleeg word.

TOEDIENINGSMETODES EN -TOERUSTING:

- Dien PIC PLUS GRONDBEROKINGSMIDDEL via 'n beitelploeg-implement of omslagploeg toe.
- Maak seker dat die toedieningstoerusting behoorlik gekalibreer is voordat beroking gedoen word.
- Wanneer vlak toedieningswerk (inspuitingdiepte van 20 tot 40 cm) gedoen word, gebruik 'n skagspasiëring van 25 tot 30 cm.
- Dieper toedienings word voorgestel vir diep-gewortelde plante. Vir diep toedienings (inspuitingdiepte van 40 –
  45 cm), kan 'n skagspesiëring van 60 cm gebruik word, hoewel dit nie aanbeveel word dat die skagspasiëring 45 cm oorskry nie.

TOEDIENINGSDIEPTE

- Seilbedekte beddings enbreedwerpige toedienings: Die inspuitingspunt moet 'n minimum van 20 cm vanaf die naaste finale grond/lug raakvlak (d.w.s. die bopunt van die bedding, vir bedding toediening) wees.
- Onbedekte beddings: Die inspuitingspunt moet 'n minimum van 30 cm vanaf die naaste finale grond/lug raakvlak wees.
- Onbedektebreedwerpige toedienings: Die inspuitingspunt moet 'n minimum van 30 cm vanaf die finale grond/lug raakvlak wees.
- Onbedekte, dieptoedienings: Die inspuitingspunt moet 40 – 45 cm vanaf die finale grond/lug raakvlak wees.

GRONDVERSEËLING:

Verseëling van die grond ná toediening is baie belangrik. Die grond moet onmiddellik verseël word ná inspuiting. Daar is verskeie metodes om die oppervlak van die grond te seël, soos volg:

- Vir vlak toediening (inspuitingdiepte van 20 tot 40 cm) en/of wye-bedding toedienings, moet die grond verseël word met 'n polistireen versperringsfilm (plastiek berokingsfilm/seil).
- Vir diep toedienings (inspuitingdiepte van 40 - 45 cm), verseël met polistireen versperringsfilm <u>of</u> deur middel van 'nsny-eg gevolg deur 'n roller, roller-kompakteerder, of soortgelyke toerusting.
- Met ry- en/of nou-bedding toedienings kan verseëling met polistireen versperringsfilm gedoen word <u>of</u> deur middel van 'n bedding-perser, ring-roller, of soortgelyke toerusting.
- In die geval van onbedekte toedienings, moet die grondoppervlak geseël word deur besproeiing, deur die boonste 20 mm grond te deurdrenk met water. Herhaaldelike besproeiing mag verlang word gedurende die toedieningsperiode om te voorkom dat die boonste grondlaag kraak.

BLOOTSTELLINGSPERIODE:

Indien die polistireen versperringsfilm gebruik is, mag dit ná 5 dae afgehaal word. Wanneer enige ander verseëling gebruik is, los die grond ongehinderd vir 7 dae voor bewerking om die grond te deurlug. Koue en/of nat grond sal 'n langer blootstellingsperiode benodig. Moenie die grond bewerk indien dit te nat is om omgeploeg te word nie.

DAE VOOR PLANT

Moenie plant vir ten minste 10 dae nadat die polistireen versperringsfilm-laag verwyder is nie. Moenie plant vir 7 dae ná die oorspronklike bewerking waar enige ander vorm van verseëling gebruik is nie. Langer deurlugtingsperiodes mag benodig word waar die grond nat, koud of ŉ hoë klei-of slik-inhoud het.

Vir alle toedienings, MOENIE PLANT indien daar nog ŉ reuk teenwoordig is nie. Indien die reuk steeds teenwoordig is nadat deurlugting toegepas is, mag dit nodig wees om die grond herhaaldelik te bewerk voor daar geplant of gesaai kan word. Breek die kors van die grond, indien nodig, deur dit met skoon toerusting te bewerk, om dit sodoende te belug.

BEMESTING:

Beroking mag die vlak van ammoniakstikstof en oplosbare sout in die grond tydelik verhoog. Om ammoniak-skade en/of nitraatverhongering van gewasse te vermy, vermy die gebruik van bemestingstowwe wat ammoniaksoute bevat en gebruik slegs bemestingstowwe wat nitrate bevat, tot nadat die oes goed gevestig en die grondtemperatuur omtrent 20℃ is. Deur grond wat baie suur is eers te kalk voor beroking, word nitrifikasie gestimuleer en kan die moontlikheid van ammoniak-toksisiteit ook verminder word.

HERBESMETTING:

- Voorkom herbesmetting van behandelde grond. Moenie oorplantings, gereedskap, of oesoorblyfsels wat besmet is deur grondoordraagbare plantparasiete en onkruidsaad gebruik nie. Maak die toedieningsaparate noukeurig skoon voor en ná gebruik.
- Moenie berookte areas kontamineer deur vanaf onberookte grond na berookte grond te stap nie.
- Indien die behandelde area op ŉ plek is waar vloede moontlik is ná reën, ploeg ŉ sloot rondom die area vir doeltreffende dreinering.

TOEDIENIGSTABEL
PIC PLUS GRONDBEROKINGSMIDDEL

<table>
<tr><th>GEWASSE</th><th>PROBLEEM / PESTE</th><th>DOSIS</th><th>OPMERKINGS</th></tr>
<tr><td>EENJARIGE GEWASSE
Insluitende:
Aartappels,
Groente, en
Tabak</td><td rowspan="2">Grondoordraagbare swamsiektes, insluitend spesies van:
Verticillium- en
Fusarium-verwelking
Pythium
Phytophthora
Sclerotium
Bakteriese verwelking:
Streptomyces scabies
(Aartappelskurf)
Ringwurms
Nematodes
Insekte</td><td rowspan="2">200 tot 690 kg/ha</td><td rowspan="2">Voor-plant grondberokingsmiddel

Gebruik laer dosisse op ligter grondtipes.
(< 10% klei, soos byvoorbeeld sand of sandleem)

Gebruik hoër dosisse op digter grondtipes.
(10-25% klei, soos byvoorbeeld slik of kleileem)</td></tr>
<tr><td>MEERJARIGE GEWASSE
Vrugtebome
Aarbeie</td></tr>
</table>

ADDISIONELE INSTRUKSIES VIR BERGING, HANTERING EN VERSKEPING VAN HOUERS:
Stoor houers regop, vasgemaak teen 'n muur of op 'n rak om te voorkom dat dit omval. (MOENIE houers blootstel aan hardhandige hantering of meganiese skok deur dit te laat val, stamp, sleep, of skuif nie.) MOENIE houers aan rowwe hantering of meganiese skok onderwerp nie, soos om te laat val, te stamp, te sleep of te gly.MOENIE toue, hake, tange of soortgelyke voorwerpe gebruik om die houers af te laai nie. (Vervoer houers deur van tweewiel-trollies, vurkhysers of enige ander toestelle waaraan die houers stewig vasgemaak kan word, gebruik te maak). Vervoer houers met 'n handvragmotor, vurkvragmotor of ander toestel waaraan die houers stewig vasgemaak kan word.By silinders moet die beskermingsklep eers verwyder word wanneer berokingsmiddel daaruit verwyder gaan word; plaas die beskermingsklep en die veiligheidsklep terug op die silinder ná gebruik of wanneer dit leeg is. By dromme moet die proppe stewig in plek gehou word wanneer die drom nie gebruik word nie. MOENIE die houers vervoer indien die beskermingsklep en veilgheidsklep of prop nie deeglik vasgemaak is nie. Stuur alle leë of halfgebruikte houers terug aan die verspreider of registrasiehouer; MOENIE die houer vir enige ander doel hergebruik nie.

PROSEDURES VIR STORTING EN LEKKASIE
Ontruim die onmiddellike area waar die lekkasie voorkom. Wanneer die besoedelde area herbetree moet word om die lekkasie reg te maak, maak seker dat die korrekte beskermende klere en toerusting, gedra word. (Verskuif) Skuif die silinders wat beskadig is of lek na buite of na 'n geïsoleerde area. Volg streng veiligheidsmaatreëls. Werk windop, indien moontlik. Laat die gemorsde berokingsmiddel verdamp of laat dit geabsorbeer word deur droë sand, grond, vermikuliet of soortgelyke absorberingsmiddel. Raak ontslae van die besmette materiaal op die perseel of by 'n goedgekeurde stortingsfasiliteit. Slegs korrek-opgeleide en toegeruste hanteerders mag toegelaat word om so 'n skoonmaakproses uit te voer. MOENIE toegang tot die gekontamineerde area deur enige ander persoon toelaat totdat die konsentrasie van chloropikrien gemeet is en 0.15 ppm of laer is nie.

VIR CHEMIESE NOODGEVALLE (Storting, Lekkasie, Brand, Blootstelling, of Ongeluk)
Kontak CHEMTREC: 0-800-983-611 (24 uur)