

FARM-AG ALUMINIUM PHOSPHIDE

Reg. No.: L10024 Act No. 36 of 1947

A tablet fumigant insecticide for the control of pests in stored grain, seed, tobacco and storage premises. Can also be used for the control of porcupines, moles, gerbils and other rodents as indicated.

ACTIVE INGREDIENT:

Aluminium phosphide
(Inorganic compound)570g/kg

Registered by:

Cedar Falls Properties 130 (Pty) Ltd
Co. Reg No. 2006/031383/07
22 Burnside Drive, Old Mill Industrial Park
Mt Edgecombe, 4300
Tel: 031 5388700

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WARNINGS:

- Handle with extreme care. The product should only be applied by well instructed personnel familiar with the potential hazards of fumigation and all necessary measures.
- Precaution on gas: Only to be sold and stored in Aluminium flask.
- Phosphine gas is highly toxic when inhaled. Recently fumigated grain may, upon removal, liberate harmful concentrations of gas.
- Tablets are poisonous when swallowed.
- Severe respiratory irritant.
- Toxic to fish and wildlife.
- Flammable when wet – protect against water.
- Phosphine reacts with copper, copper compounds, gold and silver. Pay special attention to electrical equipment and protect adequately. Container should be resealed immediately and not be left open for any length of time.
- Store under lock and key and out of reach of children, uninformed persons and animals, in a cool, dry well ventilated place.
- **In case of poisoning call a doctor and show him this label.**

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 and the occurrence of resistance of the pest 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 of for the 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 registration. Consult the supplier in the event of any uncertainty.

PRECAUTIONS

- Open container only in open air.
- Do not eat, drink or smoke whilst handling this product.
- Prevent contamination of food, feed, drinking water and eating utensils.
- Wear rubber gloves and suitable respirator when applying the product.
- Do not inhale the fumes.
- If you get it in your eyes, flush it out at once. If you get it on your skin, wash it off at once. If you spill it on your clothes, change and wash them.
- Do not place tablets where it can contaminate other crops, grazing, rivers or dams.
- Destroy empty container. Do not use for any other purpose.
- Change and wash your work clothes.
- Wash yourself.

Symptoms of human poisoning: Nausea, headache, vomiting, vertigo, sudden or gradual loss of consciousness, diarrhoea, abdominal pains and pains in the chest. Immediate treatment is imperative.

First aid treatment:

- Poisoning by inhalation of gas:** Remove person from source of poisoning to a well ventilated area and keep him quiet and reassured. Administer manual cardio pulmonary resuscitation if necessary (not mouth-to-mouth). Take patient to a hospital at once.
- Poisoning by swallowing:** Induce vomiting if the patient is still fully conscious and repeat until vomit ceases to smell of carbide.
- Skin and eye contamination:** Wash contaminated parts with a gentle stream of water. Do not use other chemicals.

Note to physician: Treat symptomatically. In the case of swallowing, perform gastric lavage. In cases where hypotension develops, consider cardiac tonic Dopamine 5 – 10 µg / kg / min.

Complications normally are: Incipient pulmonary oedema: consider gluco-corticoids e.g. 500 – 1000 mg Prednisolone on first day. Progressive lung oedema: give oxygen and continuously remove fluid by means of intubation. Counter enzyme blockage oxygen deficiency by exchange blood transfusion. Renal failure: consider hemodialysis. Watch for hepatic failure, electrocardiac and electrolyte disturbances. In severe cases in adults, 20 ml of a 20% Calcium glucomate solution plus 1 – 2 g of 10% Sodium thiosulphate (i.v.), may also be considered.

No specific antidote is known. Tablets develop into the highly effective phosphine gas (PH₃) when coming into contact with humidity. Phosphine is a gas with a high penetrating power which destroys the adult insects as well as their pre-adult stages (eggs, larvae and pupae) in the grain kernels. Phosphine kills all kinds of stored grain pests which normally found, for example, Grain weevil, Rive weevil, Saw-toothed grain beetle, Lesser grain borer, Khapra beetle, Cadelle, Indian meal moth, Mediterranean flour moth and Angoumois grain moth.

The decomposition of the tablets resulting in the formation of large quantities of phosphine, does not begin before 2 – 3 hours after expo-sure. The generation of gas is completed after approximately 3 – 6 days.

DIRECTIONS FOR USE: Use only as indicated.

The product should only be applied by well instructed personnel familiar with the potential hazards of fumigation and all necessary measures.

Application: Tablets should be added to the grain stream at short, even intervals as it enters the silo. The tablets can be added at the chute as the grain enters the silo. It is imperative that the tablets be distributed as evenly as possible throughout the bulk of grain. Tablets should be added mechanically with an automatic tablet dispenser or by hand wearing rubber gloves. The quantity of tablets needed should be calculated prior to application. If possible, use up contents of container in one operation. Containers not completely emptied, must be thoroughly re-sealed and stored in a cool, dry place.

Normally respirators are not required but should be on hand with special canisters against phosphine gas in case of an emergency. Never enter fumigated space when the concentration exceeds 1 p.p.m. without a suitable respirator. Phosphine has a strong carbide smell. The presence or absence of gas is to be determined with a gas detector, e.g. Auer or Draeger detector.

Airing: Phosphine is a gas with a high volatility and it

therefore disappears within a relatively short time. All coverings and sealings have to be removed for airing. For a quick airing, the windows and entrance hatches can be opened in the silo. As a safety measure a minimum airing of 2 – 3 hours must be observed before fumigated space can be entered again.

Recommendation for control of moles, porcupines, gerbils and other rodents:

1. Moles:

Dosage: 1 tablet per hole.

Remarks: FARM-AG ALUMINIUM PHOSPHIDE tablets should be applied in the morning as moles are generally rather inactive at this time of the day. Avoid all unnecessary noise and movement while treating the holes because moles are easily alerted and the smell of the gas will cause them to block their tunnels and thus escape death. All burrows in a given area, e.g. garden must be treated simultaneously. Mole heaps must be carefully removed to expose the tunnel entrance. Ensure the tunnel is not blocked by soil. Place one FARM-AG ALUMINIUM PHOSPHIDE tablet deep into the tunnel. Seal the hole by stuffing a ball of crumpled newspaper into the hole, cover with moist soil and stamp down firmly. Any new mole heaps appearing the follow morning must be treated.

Note: Moles can travel long distances underground at night and may enter from neighbouring gardens. In cases of heavy infestations, a few may escape death and their activity may be noticed the following day. Treat as many holes as possible at the same time.

2. Porcupines:

Dosage: Place 3 FARM-AG ALUMINIUM PHOSPHIDE tablets per hole.

Remarks: Ascertain that the hole is active by smoothing the soil surrounding the entrance to the burrows and observing any fresh footprints the next morning. Place 3 FARM-AG ALUMINIUM PHOSPHIDE tablets as deep down the hole as possible. Cover the entrance and seal with soil. Inspect the hole the following morning.

3. Gerbils:

Dosage: Place 1 FARM-AG ALUMINIUM PHOSPHIDE tablet per hole.

Remarks: Block all the holes to the burrow in the field. This may be done by shallow discing of the area. The following morning place 1 FARM-AG ALUMINIUM PHOSPHIDE tablet approximately 0,5 m deep into each furrow which was opened during the night. Seal the hole by stuffing a ball of crumpled newspaper into the hole, cover with soil and tramp down. Best time for control is the forenoon before the gerbils become active in the evening. Check the burrows the following day and treat any which have been ducked open again.

4. Rabbits, field rats and mice

Dosage: At least 1 tablet per whole depending of size of burrow.

Remarks: Other rodents may be successfully controlled with FARM-AG ALUMINIUM PHOSPHIDE tablet, the essence of control being that the pests come in contact with the gas and remain exposed to it for a sufficient length of time for the gas to kill them. Rodents vary in their habits and thus the method must be adapted to suit the circumstances in each individual case. The suggested dosage rate is 1 FARM-AG ALUMINIUM PHOSPHIDE tablet per hole, but may vary with the size of the burrow.

5. CEREAL GRAINS AND OIL SEEDS – BULK STORAGE:

Method of storage and directions for applications.	Maize, wheat, sorghum, rice, other cereal grains and shelled groundnuts (mass bulk of ± 700 – 800 kg/m ²)	Barley, oats, rye and buck weed (mass bulk of ± 600 – 700 kg/m ²)	Sunflower seeds (mass bulk of ± 400 kg/m ²)	Unshelled groundnuts (mass bulk of ± 300 kg/m ²)	Minimum exposure time
Absolutely gas tight silos	2,2 tablets / t	2,7 tablets / t	4,3 tablets / t	5,7 tablets / t	14 days
Reasonable gas tight silos **	6 tablets / t	7 tablets / t	11 tablets / t	15 tablets / t	5 days
FGD and FZ railway trucks. Trucks must be made gastight before hand. The fumigation may only be undertaken in conjunction with the shipper concerned and the Transnet.	210 tablets per truck for all commodities.				5 days

6. Cereal grains, oil seeds and other food commodities – bagged:

Method of storage and directions for application	Dosage	Minimum exposure time
Bagstacks Spread evenly over and around stack. Stacks must be made gastight with plastic sheets.	4 tablets / m ³	5 days

7. Tobacco – raw and processed:

Method of storage and directions for application	Dosage	Minimum exposure time
Only for fumigation in stacks, bales and cases	1 tablet / m ³ (do not exceed dosage)	4 days (preferably 8 – 10 days)

8. Empty stores, silos, etc.:

Directions for application	Dosage	Minimum exposure time
Seal prior to fumigation. Spread evenly over floor area.	5 tablets / m ³	5 days

9. Empty bags:

Method of storage and directions for application	Dosage	Minimum exposure time
Under gastight tarpaulins or in gastight chambers. Spread evenly over and around the bag stacks	5 tablets / m ³	5 days

* Silos that can maintain a pressure of 50 mm paraffin in an open arm manometer for longer than 22 seconds

** Silos that can maintain a pressure of 50 mm paraffin in an open arm manometer for between 10 and 22 seconds.

FARM-AG ALUMINIUM PHOSPHIDE

Reg. Nr.: L10024 Wet Nr. 36 van 1947

'n Tablet berokingsmiddel insekdoder vir die beheer van plaë in opgebergde graan, saad, tabak en opbergingspersele. Kan ook gebruik vir die beheer van ystervarke, molle, springhaasmuise en ander knaagdiere soos aangedui.

AKTIEWE BESTANDDEEL:

Aluminiumfosfied (Anorganiese verbinding).....570g/kg

Geregistreer deur:

Cedar Falls Properties 130 (Edms) Bpk
Mkpy Reg. Nr. 2006/031383/07
22 Burnside Drive, Old Mill Industrial Park
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GIFTIG

WAARSKUWINGS:

- Hanteer met uiterste versigtigheid. Die produk behoort slegs toegedien te word deur goed opgeleide personeel wat vertrou is met die maatskappij se gevare van berokking en alle ander vereiste maatstawwe.
- Voorsorgmaatreëls met gas: Mag slegs verkoop en gestoor word in 'n Aluminium fles.
- Fosfiede gas is is uiters giftig wanneer ingeasem word. Graan wat onlangs berook is, mag wanneer dit verwyder word, skadelike konsentrasies van gas vrylaat.
- Tablette is gevaarlik wanneer dit ingesluk word.
- Ernstige asemhalingsprobleme.
- Gif vir vis en natuurlewe.
- Vlambaar wanneer nat – beskerm teen water.
- Fosfiede reageer op koper, kopersamestelling, goud en silwer. Gee spesiale aandag aan elektriese toerusting en beskerm dit behoorlik. Die houër behoort dadelik herseël te word, en mag geensins oop gelaat word vir enige periode van tyd nie.
- Bêre agter slot en grendel buite bereik van kinders, oningeligte personeel en diere, in 'n koel, droë goed geventileerde plek.
- In geval van vergiftiging ontbied 'n genesheer en toon hierdie etiket aan hom/haar.

Alhoewel hierdie middel op groot skaal onder 'n groot verskeidenheid van toestande getoets is, kan die registrasiehouer nie verseker dat dit onder alle omstandighede effektief sal wees nie omdat die reaksie en gevolg daarvan deur faktore soos abnormale klimaat en stoormstandighede asook die voorkoms en weerstand van die pes teen die middel betrokke, sowel as die metode, tyd en akkuraatheid van toediening beïnvloed kan word. Verdermeer aanvaar die registrasiehouer geen verantwoordelikheid vir skade aan gewasse, plantegroei, die omgewing of skade aan mense of diere vir die gebrek aan prestasie van die betrokke middel as gevolg van 'n gebrek van die gebruiker om die instruksies op die etiket noukeurig te volg, of vir die voorkoms van toestande wat nie voorsien kon word tydens registrasie nie. Raadpleeg die verskaffer in geval van enige onsekerheid.

VOORSORGMATREËLS:

- Maak slegs die houër buite in die oop lug, oop.
- Moenie eet, drink of rook terwyl die produk hanteer word nie.
- Verhoed besoedeling van voedsel, drinkwater en eetgerei.
- Dra rubber handskoene en 'n geskikte asemhalings-toestel wanneer die produk toegedien word.
- Moenie die dampe inasem nie.
- Indien jy dit in jou oë kry, spoel dadelik jou oë uit. Indien jy dit op jou vel kry, was dit dadelik af. Indien jy dit op jou klere gemors het, trek ander klere aan en was onmiddellik die besoedeelde klere.
- Moenie tablette op 'n plek sit waar dit ander gewasse, weiding, riviere of damme kan besoedel nie.
- Vernietig die leë houër. Moenie dit vir enige ander doeleindes gebruik nie.
- Trek jou werksklere uit en was dit onmiddellik.
- Was jouseif.

Simptome van menslike vergiftiging: Naarheid, hoofpyn, braking, duiseligheid, skielike of geleidelike verlies van bewustyn, diareë, maagpyn en pyn op die bors. Onmiddellike behandeling is ononderhandelbaar.

Noodhulpbehandeling:

- Vergiftiging deur inaseming van die gas:** Verwyder die persoon weg van die bron van vergiftiging na 'n goed geventileerde area en hou hom kalm en rustig. Pas hartmassering toe indien nodig (nie mond-tot-mond asemhaling nie). Neem pasiënt dadelik na 'n nabygeleë hospitaal.
- Vergiftiging deur in te sluk:** Veroorsaak braking terwyl die pasiënt nog by sy/haar volwasse bewussyn is en herhaal proses totdat die braking begin ruik na korbied.

c) Vel en oog besoedeling: Was besoedeelde gedeelte met 'n dun stroompe water. Moenie ander chemiese middels gebruik nie.

Nota aan Geneesheer: Behandel simptome. In geval waar dit ingesluk is, dien maagspoeling toe. Waar hipotensie (lae bloeddruk) ontwikkel, oorweeg Dopamien 5 – 10 µg / kg / min.

Komplikasies is gewoonlik die volgende: In die begin stadium van longedeem (watersug): oorweeg glukokortikosteroïde byvoorbeeld Prednisoloon op eerste dag. Progressiewe longedeem: verskaf suurstof en verwyder vog voortdurend deur middel van intubering. Doen 'n uitruiltransfusie om suurstof tekort as gevolg van ensiem blokkering teen te werk. Oorweeg hemodialise in die geval van nierversaking. Let op 'n lewerversaking, ritmestoornisse en elektroliet wanbalans. In ernstige gevalle in volwassenes kan 20 ml van 'n 20% kalsiumglukomaat oplossing asook 1 – 2 van 10% thiosulfaat binnebaars oorweeg word.

Geen spesifieke teenmiddel is bekend nie. Tablette ontwikkel tot hoogs effektiewe fosfiede gas (PH₃) wanneer dit in aanraking met humiditeit kom. Fosfied is 'n gas met 'n hoë penetrasie mag wat die volwasse insekte sowel as hulle pre-volwasse stadiums (eiers, larwe en papië) in die graankorrel vernietig. Fosfied maak alle soorte gestoorde graanplaë wat normaalweg gevind word in bv. Graankalander, Kloof of Skeurkalander, Saagtand graankewer, Klein graanboorder, Khapra kewer, Cadelle, Indiese meelmot, Mediterreense meelmot en Angoumois graanmot.

Die samestelling van die tablette het tot gevolg dat die formasie van groot hoeveelhede van fosfied nie voor 2 – 3 ure na blootstelling begin nie. Die ontwikkeling van gas is voltooi na ongeveer 3 – 6 dae.

GEBRUIKSAANWYSINGS: Gebruik slegs soos aangedui

Die produk behoort slegs toegedien te word deur goed opgeleide personeel wat bekend is met die maatskappij se gevaar van berokking en al die noodsaaklike maatstawwe.

Toediening: Tablette behoort tot die graanstroom bygevoeg te word op 'n kort, selfs met interalle wanneer dit by die silo ingaan. Die tablette kan by die geut van die silo bygevoeg word wanneer dit die silo binnegaan. Dit is noodsaaklik dat die tablet sover as moontlik eweredig versprei word deur die losgraan. Tablette behoort meganies met behulp van 'n outomatiese tablettoediener of met die hand deur rubber handskoene te dra, bygevoeg te word. Die hoeveelheid tablette wat benodig word, behoort voor die toediening bereken te word. Indien moontlik, moet die totale inhoud van die houër in een slag opgebruik word. Houers wat nie heeltemal leë is nie, moet baie deeglik herseël en in 'n koel en droë plek gestoor word.

Gewoonlik word asemhalingsstoestelle nie benodig nie, maar moet beskikbaar wees met spesiale gasflesse as teenmiddel teen fosfied in geval van nood. Moenie 'n beroekte spatie sonder 'n geskikte asemhalingsstoel ingaan wanneer die konsentraat 1 p.p.m. oorskry nie. Fosfied het 'n sterk korbied reuk. Die teenwoordigheid of afwesigheid van gas moet met 'n gasverklipper bepaal word, bv. 'n Auer of Draeger verklikker.

Lugbeweging: Fosfied is 'n gas met 'n hoë beweeglikheid en daarom verduyn dit binne 'n relatiewe kort tydperk. Alle bedekkings en versleëls moet verwyder word om lugbeweging toe te laat. Vir winnige lugbeweging, kan die vensters en ingange van die silo oopgemaak word. As 'n veiligheidsmaatree moet 'n minimum lugbeweging van 2 – 3 ure waargeneem word voordat die beroekte gebied weer binnegegaan kan word.

Aanbevelings vir die kontrole van molle, ystervarke, nagmuise en ander knaagdiere:

1. Molle:

Dosis: 1 tablet per gat.
Opmerkings: FARM-AG ALUMINIUM PHOSPHIDE tablette behoort in die oggend toegedien te word, siende dat molle gewoonlik onaktief is gedurende die tyd van die dag. Vermoed alle onnodige geraas en beweging terwyl die gat behandel word, omdat molle maklik gewaarsku kan word en die reuk van die gas sal veroorsaak dat hulle, hul tunnels sal toemaak of blok wat tot gevolg het dat hulle die dood sal vryspring. Alle gate in 'n gegewe area bv. In die tuin moet dieselfde tersetdertyd behandel word. Molshope moet versigtig verwyder word om die ingang tot die tunnel sigbaar te maak. Verseker dat die tunnel nie deur grond geblok is nie. Plaas een FARM-AG ALUMINIUM PHOSPHIDE tablet diep in die tunnel. Seël die gat deur 'n bal van gekreukelde koerantpapier in die gat te druk, bedek dit met nat grond en stamp dit stewig vas. Enige nuwe molshope wat die volgende oggend voorkom, moet behandel word.
Nota: Molle kan gedurende die nag lang afstande ondergronds beweeg, en kan van die bure se tuin inkom. In geval van hoë infestasië, mag 'n paar die dood vryspring en hulle aktiwiteite mag die volgende dag waargeneem word. Behandel so veel as moontlik gate tersetdertyd.

2. Ystervarke:

Dosis: Plaas 3 FARM-AG ALUMINIUM PHOSPHIDE tablette per gat.
Opmerkings: Verseker dat die gat aktief gehou word deur die grond rondom die ingang gelyk te maak en kyk vir enige voetspore die volgende oggend. Plaas 3 FARM-AG ALUMINIUM PHOSPHIDE tablette so diep as moontlik in die gat. Bedek die ingang en seël met grond. Inspekteer die gat die volgende oggend.

3. Nagmuise. – Dosis: Plaas 1 FARM-AG ALUMINIUM PHOSPHIDE tablet per gat.

Opmerkings: Blok al die gate tot by die tunnel in die veld. Dit kan gedoen word deur middel van die area vlak te ploeg. Die volgende oggend moet 1 FARM-AG ALUMINIUM PHOSPHIDE tablet ongeveer 0,5 m diep in elke voor wat gedurende die nag oop was, geplaas word. Seël die gat met bal gekreukelde koerantpapier in die gat, bedek met grond wat vasgetrap word. Die beste tyd vir kontrole is voormiddag voordat die nagmuise aktief begin raak in die aand. Kyk na die gate die volgende dag en behandel die gate wat weer oopgekras is.

4. Hase, veldrotte en muise. Dosis: Ten minste 1 tablet per gat afhangende die grootte van die voor.

Opmerkings: Ander knaagdiere mag suksesvol beheer word met 'n FARM-AG ALUMINIUM PHOSPHIDE tablet, die belangrikste daarvan is dat die pes in kontak kom met die gas en blootgestel is daaraan vir 'n voldoende tydperk sodat die gas hulle kan doodmaak. Knaagdiere verskil in hulle gewoontes en daarom moet die metode aangepas word om die omstandighede in elke individuele geval te pas. Die voorgestelde dosis is 1 FARM-AG ALUMINIUM PHOSPHIDE tablet per gat, maar dit mag verskil afhangend van die grootte van die voor.

5. GRAANGEWASSE EN OLIESADE – MASSA BERGING:

Metode van stoor en instruksies vir toediening	Mielies, koring, sorghum, rys, ande graangewasse en uitgedopte grond-boontjies (vrag massa van ± 700 – 800 kg/m ³)	Gars, hawer, rog (vrag massa van ± 600 – 700 kg/m ³)	Sonneblom saad (vrag massa van ± 400 kg/m ³)	Uitgedopte grondboontjies (vrag massa van ± 300 kg/m ³)	Minimum blootstellings-tyd
Absolute gas digte silos **. Dien toe op die vervoerband terwyl graan besig is om in silo gelaai te word. Silo moet volgemaak word in die kortste moontlike tyd.	2,2 tablette / t	2,7 tablette / t	4,3 tablette / t	5,7 tablette / t	14 dae
Redelike gas digte silos **. Dien toe op die vervoerband terwyl graan besig is om in silo gelaai te word. Silo moet volgemaak word in die kortste moontlike tyd.	6 tablette / t	7 tablette / t	11 tablette / t	15 tablette / t	5 dae
FGD en FZ treinspoor trekke. Trekke moet voor die tyd gasdig gemaak word. Die berokking mag slegs onderneem word met toestemming van die betrokke verskeper en Transnet.	210 tablette per vrag vir alle kommoditeite.				5 dae

6. Graangewasse, oliesade en ander voedselsoorte – in sakke:

Metode van stoor en instruksies vir toediening	Dosis	Minimum blootstellings tyd
Sakstapels – Versprei eweredig oor en om die stapels Stapels moet gas dig gemaak word met plastiek seile.	4 tablette / m ³	5 dae

7. Tabak – rou en geprosesseer:

Metode van stoor en instruksies vir toediening	Dosis	Minimum blootstellings tyd
Slegs vir berokking in in oeshope, bale en houers	1 tablet / m ³ (moenie dosis oorskry nie)	4 dae (verkiesslik 8 – 10 dae)

8. Leë stoor, silos, ens.:

Aanwysings vir toediening	Dosis	Minimum blootstellings tyd
Verseël voor berokking. Versprei eweredig oor vloer area.	5 tablette / m ³	5 dae

9. Leë sakke:

Metode van stoor en instruksies vir toediening	Dosis	Minimum blootstellingstyd
Onder gasdigte seile of in gasdigte kamers. Versprei eweredig oor en om die sakstapels.	5 tablette / m ³	5 dae

* Silos wat 'n druk van 50 mm paraffien kan behou in 'n oop arm manometer vir langer as 22 sekondes

** Silos wat 'n druk van 50 mm paraffien kan behou in 'n oop arm manometer vir tussen 10 en 22 sekondes.