

HYPERCIDE

Act No. 36 of 1947 / Wet Nr. 36 van 1947
SA Reg. No. L11483

**READ ATTACHED PACKAGED LEAFLET BEFORE USE
KEEP OUT OF REACH OF CHILDREN AND ANIMALS**

GROUP

NC

FUNGICIDE

PRODUCT INFO:

A soluble concentrate, contact bactericide and fungicide for the management of diseases on crops as listed.



DANGER

PRODUK INFO:

'n Oplosebare konsentraat, kontak bakteriesied en swamdoder vir die bestuur van siektes op gewasse soos gelys.

HAZARD STATEMENTS:

Heating may cause fire.
May be harmful if swallowed.
Harmful in contact with skin.
Causes severe skin burns and eye damage.
Harmful if inhaled.
May cause respiratory irritation.
Very toxic to aquatic life.

PRECAUTIONARY STATEMENTS:

Keep away from heat, hot surfaces, sparks, open flames, and other ignition sources. No smoking.
Wear protective gloves, protective clothing, eye and face protection.

Active Ingredients / Aktiewe Bestanddele

Peracetic Acid
Hydrogen Peroxide

145 g/ℓ
228 g/ℓ

Perasynsuur
Waterstofperoksied

Net (ℓ) SEE CONTAINER

Registration Holder / Registrasiehouer



ICA International Chemicals (Pty) Ltd. • Reg. No. 2001/013319/07
28 Planken Street • Plankenbrug Industrial • STELLENBOSCH • 7600 • SOUTH AFRICA
Tel. +27-21 886 9812 • www.icaonline.co.za



What is
GHS?

Batch No.
Date of Manufacture
Expiry Date

**SEE
CONTAINER**

Lot Nr.
Datum van Vervaardiging
Vervaldatum

In case of poisoning, call the following number: Human Poison Helpline +27-861 555 777
Emergency Number: Griffon Poison Information Centre +27-82 446 8946

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WARNINGS

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Causes severe skin burns and eye damage
Harmful if inhaled
May cause respiratory irritation
Very toxic to aquatic life

WITHHOLDING PERIODS (Minimum number of days between last application and harvest):

- ▶ Postharvest Applications 0 Days
- ▶ Apples & Pears 0 Days
- ▶ Citrus 0 Days
- ▶ Cucurbits 0 Days
- ▶ Grapevines 1 Day
- ▶ Strawberries 0 Days

Compliance with these withholding periods and application methods will ensure that residues do not exceed local maximum residue limits (MRL) but may not meet the import requirements of other countries. If the crop to be treated is intended for export, consult the relevant importer or exporting body regarding the use of this product, MRL and recommended waiting periods. Although **HYPERCIDE** is regarded as crop-safe on most of the important cultivars, this does not mean that a more sensitive cultivar might be available in future. **HYPERCIDE** must be tested on new cultivars prior to usage over big areas.

RE-ENTRY INTERVAL: Enter treated field with protective clothing before spray deposit has settled down and dried. Handle treated produce with gloves when still wet.

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, quality of dilution water, compatibility with other substances not indicated on the label and the occurrence of resistance of the disease 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, and the environment or harm to man/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.

PRECAUTIONS

If medical advice is needed, have product container or label at hand.
Keep out of reach of children.
Read label before use.
Keep away from heat, hot surfaces, sparks, open flames, and other ignition sources. No smoking.
Keep only in original packaging.
Ground and bond container and receiving equipment.
Do not breathe fumes, mist, vapours, spray.
Wash hands and exposed skin thoroughly after handling. Do not touch eyes.
Use only outdoors or in a well-ventilated area.
Avoid release (of concentrate) to the environment.
Wear protective gloves, protective clothing, eye and face protection.
[In case of inadequate ventilation] Wear respiratory protection.
IF SWALLOWED: Rinse mouth. Do NOT induce vomiting. Get medical help.
IF ON SKIN: Wash with plenty of soap and water.
IF ON SKIN: Take off immediately all contaminated clothing. Immediately rinse with water for several minutes.
IF INHALED: Remove person to fresh air and keep comfortable for breathing. Get medical help if you feel unwell.
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 specific treatment refer to first aid measures on this label.
Take off contaminated clothing and wash it before reuse.
In case of fire: Use water spray or fog; if water not available use dry chemical, CO₂, or regular foam to extinguish.
Collect spillage.
Store in a well-ventilated place. Keep container tightly closed (with original vented cap).
Store locked up.

Protect from sunlight.
Store at temperatures not exceeding 30 °C.
Store separately.
Dispose of contents and container in accordance with national regulations.

TRIPLE RINSE THE EMPTY CONTAINER AS FOLLOWS: Invert empty container over mix or spray tank and allow draining for at least 30 seconds until flow has slowed to a drip. Triple rinse the empty container with clean water equal to a minimum of 30 % of the volume of the container. Add rinsing to the contents of the spray tank. Offer container for recycling or puncture and dispose of at authorised landfill. Do not use container for any other purpose.

RELEVANT SUBSTANCES:

Hydrogen Peroxide (Cas no. 7722-84-1) Oxidizing Liquids Category 1, H271; Acute Oral Toxicity Category 4, H302; Acute Inhalation Toxicity Category 4, H332; Skin Corrosion Category 1A, H314 (21,5 – 24,0 % w/v).

Peracetic Acid (Cas no. 79-21-0) Flammable Liquid Category 3, H226; Organic Peroxide Category D, H242; Acute Oral Toxicity Category 4, H302; Acute Dermal Toxicity Category 4, H312; Skin Corrosion Category 1A, H314; Acute Inhalation Toxicity Category 4, H332; Aquatic Acute Toxicity Category 1, H400; STOT SE 3; H335 (13,5 – 15,0 % w/v).

Acetic acid (Cas no. 64-19-7) Eye Irritation Category 2, H319; Skin Irritation Category 2, H315 (< 25 % w/v).

FIRST AID TREATMENT

In case of accident or if you feel unwell seek medical advice immediately and show this LABEL where possible

INHALATION:	Remove from exposure, lie down. Keep patient warm and at rest. Supply oxygen or artificial respiration if needed. Obtain medical attention immediately.
SKIN:	Wash off immediately with soap and plenty of water while removing all contaminated clothes and shoes. If skin irritation occurs, call a physician. Keep warm. Wash contaminated clothing with plenty of water to prevent fire hazard.
EYES:	Immediately wash eyes with large amounts of water for at least 15 minutes, lifting upper and lower lids. Remove contact lenses if present and easy to do. Continue rinsing. Obtain immediate medical attention. Consult an ophthalmologist immediately if symptoms persist.
INGESTION:	Rinse mouth. Immediately give large quantities of water to drink. Obtain medical attention. Do NOT induce vomiting. If vomiting occurs, aspiration of the vomitus into the air passage and lungs must be avoided at all costs. When dealing with caustic substances, notify emergency physician immediately.
NOTE TO PHYSICIAN:	Treat symptomatically. Medical observation is recommended for 24 to 48 hours after breathing overexposure, as pulmonary oedema may be delayed.
POTENTIAL HEALTH EFFECTS, ACUTE AND DELAYED:	Effects of exposure (inhalation, ingestion, or skin contact) to substance may be delayed.
SYMPTOMS OF HUMAN POISONING:	Prolonged or repeated exposure may cause eye damage, irritation to the airways and skin.

PRODUCT – DILUTED AS PER LABEL

INGESTION:	Rinse mouth. Drink a large quantity of water. Get medical attention if symptoms occur.
INHALATION:	Remove from exposure if symptoms occur, lie down. Keep patient warm and at rest. Give oxygen or artificial respiration if needed. Obtain medical attention if symptoms persist.
EYES:	Immediately wash eyes with large amounts of water for at least 15 minutes, lifting upper and lower lids. Remove contact lenses if present and easy to do. Continue rinsing. Obtain medical attention if symptoms persist.
SKIN:	Solutions with HYPERCIDE concentrations of < 1 % should not damage the skin. If symptoms occur, wash with neutral soap. Obtain medical attention if symptoms persist.

RESISTANCE WARNING

For resistance management: **HYPERCIDE** is a group code (NC – Not classified) generally considered as a low risk bactericide and fungicide, resistance unknown. Nonetheless, it is good practice to alternate products in a spray programme.

To delay fungicide/bactericide resistance:

- ▶ avoid exclusive repeated use of fungicides from the same chemical class code. Alternate or tank mix with registered products from different chemical class codes,
- ▶ for tank mixing or alternation with products in other chemical class codes, refer to applicable individual product labels,
- ▶ Integrate other control methods (chemical, cultural, biological) into disease control programmes.

MODE OF ACTION

Hydrogen peroxide and peracetic acid belongs to the FRAC group NC: Chemicals with no specified mode of action. Generally considered as a low-risk group, resistance not known at present.

USE RESTRICTIONS

WARNING:

MATERIALS TO AVOID: Rust, reducing agents, metal chlorides and bases. Do not mix, store or apply this product in galvanized iron or unlined steel containers or spray tanks.

DIRECTIONS FOR USE – use only as directed

COMPATIBILITY:

HYPERCIDE compatibility with other agricultural chemicals can be influenced by factors such as dilution water quality and product formulations. It is therefore recommended to always first perform a physical compatibility test (jar test) prior to application. **HYPERCIDE** can be applied in mixtures with Teacher 230 SC (Act 36 of 1947, Reg. No. L9919), ICA Prochloraz 450 EC (Act 36 of 1947, Reg. No. L8478), ICA Thiabendazole (Act 36 of 1947, Reg. No. L7784) and Protector 400 SC (Act 36 of 1947, Reg. No. L8606), according to the labels.

HYPERCIDE is a sanitizing agent and not compatible with certain biopesticides. **HYPERCIDE** is not compatible with metal containing pesticides.

MIXING INSTRUCTIONS:

Half fill the mixing tank with clean water, add the required volume of **HYPERCIDE**. Pre-mix any other product(s) quantity to be tank mixed in at least 10-liter water *separately*. While agitating the application tank water, add the pre-mixed product(s) in the following sequence: wettable powders, water dispersible granules, suspension concentrates, emulsifying concentrates and soluble concentrates last. Top up the mixing tank with the required quantity clean water whilst agitating. Agitate constantly before and during application. DO NOT allow tank mixture to settle and do not leave the prepared mixture in the tank for any length of time, e.g., overnight, without agitation.

General instructions:

- ▶ During postharvest treatment of apples and pears, avocados, citrus, mango fruit and potato tubers, produce **must not be left** in mixtures for long periods (periods longer than indicated). This may result in damage to the rind of sensitive fruit.
- ▶ Always advisable to test a small batch of fruit for possible sensitivity against **HYPERCIDE**, as fruit sensitivity may be influenced by environmental conditions (e.g., drought, waterlogging, extreme temperatures, wind etc).
- ▶ Replace treatment mixtures when visibly dirty.
- ▶ Produce which is not directly treated after harvest, **MUST be pre-sorted** before treatment, as decaying fruit will increase disease pressure, and effective control will not be possible.
- ▶ Take note: **HYPERCIDE** prevents postharvest decay in avocado, citrus, mango, pome fruit and potato tubers caused by infections occurring during the washing process. The application of registered products in an orchard or field spray-program to control orchard / field infections, is still necessary. The application of postharvest fungicides can still be necessary, depending on the disease pressure.
- ▶ **HYPERCIDE** can be applied in mixtures with Evolve 480 SC (Act 36 of 1947, Reg. No. L10644), ImazaCure 750 SG (Act 36 of 1947, Reg. No L7928), Teacher 230 SC (Act 36 of 1947, Reg. No L9919), ICA Prochloraz 450 EC (Act 36 of 1947, Reg. No L8478), ICA Thiabendazole (Act 36 of 1947, Reg. No L7784), StrobiCure 250 SC (Act 36 of 1947, Reg. No L10577) and Protector 400 SC (Act 36 of 1947, Reg. No L8606), according to the labels.
- ▶ In field applications, **HYPERCIDE** manage disease development by killing pathogens on contact. Applications must commence before the appearance of symptoms. Regular monitoring of treated crops must be done. Change over to a curative programme with fungicides with a different mode of action when damage reaches economic thresholds.
- ▶ **HYPERCIDE** applications do not contribute to pesticide residues.

APPLICATION RATES

CROP	DISEASE	DOSAGE PER 100 ℓ WATER	REMARKS
Apples and Pears Postharvest treatment	<i>Penicillium expansum</i> postharvest decay, due to infections occurring in drench, flume or wash water.	200 – 400 mℓ Depending on inoculum pressure	Dip or drench fruit. For best results, keep fruit wet for at least 3 minutes. Use higher rate under conditions of high disease pressure. Maintain HYPERCIDE concentration at recommended rate. Monitor the HYPERCIDE concentration with the “ HYPERCIDE Test Kit” or “ HYPERCIDE Test Strips”, and top-up the concentration accordingly.
Orchard application	Powdery mildew (<i>Podosphaera leucotricha</i>) control.	400 mℓ	Include in a preventative spray programme, applied every 7 – 14 days, commencing before the appearance of the first symptoms. Apply as a full cover spray, ensure thorough coverage (See below for tree row volume calculations (TRV)). Treated trees can be harvested as soon as the crops have dried-off after treatment. In orchard trials, control of 75 – 93 % was obtained after 5 applications at 7 – 14 day intervals.

Water volume (ℓ) per hectare required for full cover spray using tree row volume (TRV) calculation:

Tree height and diameter to be measured in summer when trees are in full flush. Use the water volume per hectare to calculate the required amount of **HYPERCIDE** per hectare, depending on the various growth stages. It is important that the correct amount of **HYPERCIDE** per hectare is applied.

- **TRV (Bud Break to Full Blossom)**
ℓ water/ha = [(Tree Height X Tree Diameter X 937)/Row Width] X 60 %
- **TRV (75 % Petal Fall to One Month Later – Mid Season)**
ℓ water/ha = [(Tree Height X Tree Diameter X 937)/Row Width] X 80 %
- **TRV (Full Leaf, Mid-Season to Postharvest, Before Leaf Drop)**
ℓ water/ha = [(Tree Height X Tree Diameter X 937)/Row Width] X 100 %

Avocados Postharvest treatment	Anthraxnose (<i>Colletotrichum gloeosporioides</i>) postharvest decay, due to infections occurring in the wash water, dump or spray-on water.	100 mℓ	Dip (up to 3 minutes) or drench fruit. Maintain HYPERCIDE concentration at recommended rate. Monitor the HYPERCIDE concentration with the “ HYPERCIDE Test Kit” or “ HYPERCIDE Test Strips”, and top-up the concentration accordingly.
Citrus Postharvest treatment	Penicillium mould (<i>Penicillium</i> spp.) and sour rot (<i>Galactomyces citri-aurantii</i>) postharvest decay due to infections occurring in the drench, dump, spray-on, fungicide or in-line-drench water mixtures.	100 mℓ	Dip (up to 3 minutes) or drench fruit after harvest or degreening. Maintain HYPERCIDE concentration at recommended rate. Monitor the HYPERCIDE concentration with the “ HYPERCIDE Test Kit” or “ HYPERCIDE Test Strips”, and top-up the concentration accordingly.

Orchard application	Reduction of fruit borne <i>Penicillium digitatum</i> inoculum that is responsible for pre- and postharvest green mould decay.	200 mℓ	<p>As part of orchard sanitation, apply a single HYPERCIDE application prior to harvest, after the removal of all fallen fruit from the orchard floor. As HYPERCIDE sanitise the pathogen spores on contact, good coverage of the crop is essential.</p> <p>The addition of a suitable adjuvant* at registered rates can improve the efficacy of HYPERCIDE. In trials, HYPERCIDE suppressed green mould on harvested, injured fruit by > 59 %, and when an adjuvant was added suppression increased to > 69 %.</p> <p>Treated orchards can be harvested as soon as the trees have dried-off. The dried fruit should be harvested as soon as possible after treatment.</p> <p>For effective postharvest decay management, treat the harvested fruit within 12 – 24 hours with a registered postharvest fungicide according to label recommendations.</p>
Cucurbits Field application	Powdery mildew (<i>Podosphaera xanthii</i>) suppression.	800 mℓ	<p>Include HYPERCIDE as part of a preventative spray programme, at 7-day intervals. Commence application before the appearance of the first symptoms. As HYPERCIDE kill the pathogen spores on contact, good coverage of the crop is essential. Inspect the crop thoroughly every few days. As soon as there is an increase in disease development, alternate with a curative management programme that includes fungicides with a different mode of action.</p> <p>Treated fields can be harvested as soon as the crops have dried-off after treatment.</p> <p>In field trials disease suppression of 53 – 63 % were obtained after three (3) applications at 7-day intervals.</p>
Mangoes Postharvest treatment	Anthrachnose (<i>Colletotrichum gloeosporioides</i>), postharvest decay due to infections occurring in the dump or fungicide water mixtures.	100 mℓ	<p>Dip fruit for up to 5 minutes. Maintain HYPERCIDE concentration at recommended rate. Monitor the HYPERCIDE concentration with the “HYPERCIDE Test Kit” or “HYPERCIDE Test Strips”, and top-up the concentration accordingly.</p>
Potato Tubers Postharvest treatment	Bacterial soft rot (<i>Pectobacterium</i>) postharvest decay suppression due to infections occurring in the wash water.	200 – 400 mℓ Depending on inoculum pressure	<p>Treat tubers 3 – 5 minutes. When mixture is dirty, replace. Use higher rate under conditions conducive to high disease pressure. Maintain HYPERCIDE concentration at recommended rate. Monitor the HYPERCIDE concentration with the “HYPERCIDE Test Kit” or “HYPERCIDE Test Strips”, and top-up the concentration accordingly.</p>
Grapevines Vineyard application	Powdery mildew (<i>Erysiphe necator</i>) suppression.	400 mℓ	<p>Include in a preventative spray programme, applied every 10 – 14 days, commencing when shoots are 5 – 10 cm long. Apply as a full cover spray, ensure thorough coverage.</p> <p>Table Grapes: Apply in 500 – 1500 ℓ water/ha, depending on leaf area present.</p> <p>Wine Grapes: Apply in 300 – 1500 ℓ water/ha, depending on leaf area present.</p>
Strawberries Field application	Grey mould (<i>Botrytis cinerea</i>) suppression. Powdery mildew (<i>Sphaerotheca pannosa</i>) control.	200 mℓ	<p>Include in a preventative spray programme, applied at 7-day intervals. Commence application before the appearance of the first symptoms. Apply as a full cover spray and ensure thorough coverage. As HYPERCIDE will sanitise the pathogen spores on contact, good coverage of the crop is essential. Inspect the crop thoroughly every few days. As soon as there is an increase in foliar and fruit damage by the pathogens, change over to a curative management programme that includes fungicides with a different mode of action.</p> <p>Treated fields can be harvested as soon as the plants have dried-off after treatment.</p> <p><u>Grey mould</u> In field trials grey mould suppression of 57 – 72 % was obtained after five (5) applications at 7-day intervals.</p> <p><u>Powdery mildew</u> In field trials powdery mildew control of 91 – 94 % was obtained after five (5) applications at 7-day intervals.</p>

HYPERCIDE

Wet Nr. 36 of 1947
SA Reg. Nr. L11483

'n Oplosbare konsentraat, kontak bakteriesied en swamdoder vir die bestuur van siektes op gewasse soos gelys.

AKTIEWE BESTANDELE:

Perasynsuur 145 g/ℓ
Waterstofperoksied 228 g/ℓ

GEREGISTREER DEUR:

ICA International Chemicals (Pty) Ltd., Reg. Nr. 2001/013319/07
Plankenstraat 28 • Plankenbrug Industrieël • Stellenbosch • 7600 • Suid-Afrika
Tel. +27-21 886 9812 • www.icaonline.co.za

WAARSKUWINGS

Verhitting mag 'n brand veroorsaak
Mag skadelik wees indien ingesluk
Skadelik in aanraking met vel
Veroorsaak ernstige velbrandwonde en oogskade
Skadelik indien ingeasem
Mag lugwegirritasie veroorsaak
Baie giftig vir waterlewendende organismes

ONTHOUDINGSPERIODES (Minimum aantal dae tussen laaste toediening en oes):

- ▶ Aarbeie 0 Dae
- ▶ Appels & Pere 0 Dae
- ▶ Na-oes Aanwendings 0 Dae
- ▶ Pampoengewasse 0 Dae
- ▶ Sitrus 0 Dae
- ▶ Wingerd 1 Dag

Nakoming van hierdie onthoudingsperiodes en toedieningsmetodes sal verseker dat die plaaslike maksimum residu limiete (MRL) nie oorskry word nie, maar mag dalk nie voldoen aan die invoereis van ander lande nie. Indien die gewas wat behandel gaan word, bestem is vir uitvoer, raadpleeg die betrokke in- of uitvoerder rakende die gebruik van hierdie produk, die MRL en aanbevole onthoudingsperiodes. Alhoewel **HYPERCIDE** as gewasveilig beskou word op meeste van die belangrike kultivars, beteken dit nie dat 'n meer sensitiewe kultivar in die toekoms op die mark kan kom nie. **HYPERCIDE** moet eers op nuwe kultivars getoets word voordat dit oor groot areas aangewend word.

HERBETREDINGSINTERVAL: Betree behandelde gebied terwyl beskermende oorklere gedra word voordat spuitneerslag gaan lê en droog geword het. Hanteer behandelde produkte/vrugte met handskoene wanneer dit nog nat is.

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, kwaliteit van verdunningswater, verenigbaarheid met ander produkte wat nie op die etiket aangedui is nie en die voorkoms van weerstand teen die betrokke middel, sowel as die metode, tyd en akkuraatheid van toediening. Verder aanvaar die registrasiehouer nie verantwoordelikheid vir skade aan gewasse, plantegroei, die omgewing of vir nadelige effekte op mens of dier of vir 'n gebrek aan doeltreffendheid, as gevolg van die versuim van die gebruiker om die 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 geval van enige onsekerheid.

VOORSORGMATREËLS

Indien mediese advies benodig word, hou die produkhouer of -etiket byderhand.
Hou buite bereik van kinders.
Lees sorgvuldig en volg alle instruksies.
Hou weg van hitte, warm oppervlakte, vonke, oop vlamme en ander ontstekingsbronne. Rook verbode.
Hou slegs in oorspronklike verpakking.
Aard en verbind houer en ontvangstoerusting.
Moet nie walms, stuifsel, dampe, spuitstof inasem nie.
Was hande en blootgestelde vel deeglik na hantering. Moet nie aan oë raak nie.
Gebruik slegs buitenshuis of in 'n goed geventileerde area.
Verm yvrystelling (van die konsentraat) in die omgewing.
Dra beskermende handskoene, beskermende klere, oog- en gesigbeskerming.
[In geval van onvoldoende ventilasie] Dra asemhalingsbeskerming.
INDIEN INGESLUK: Spoel mond uit. Moet nie vomering induseer nie. Kry mediese hulp.
INDIEN OP VEL: Was met baie water en seep.
INDIEN OP VEL: Trek onmiddellik alle besoedelde klere uit. Spoel onmiddellik met water vir etlike minute.
INDIEN INGEASEM: Neem slagoffer na vars lug en hou gemaklik vir asemhaling. Verkry mediese hulp indien jy ongesteld voel.
INDIEN IN OË: Spoel onmiddellik met water vir etlike minute. Verwyder kontaklense, indien aanwesig en maklik om te verwyder. Hou aan met spoel.
Verkry onmiddellik mediese noodhulp.
Vir spesifieke behandeling sien noodhulp afdeling op hierdie etiket.
Trek alle besoedelde klere uit en was dit voor hergebruik.
In die geval van brand: Gebruik watersproei of mis; indien water nie beskikbaar is nie, gebruik droë chemikalieë, CO₂, of gewone skuim om brand te blus.
Maak stortsel bymekaar.
Berg in 'n goed geventileerde plek. Hou houer dig toe (met oorspronklike geventileerde dop).
Berg agter slot en grendel.

Beskerm teen sonlig.
Berg by temperature wat nie 30 °C oorskry nie.
Berg afsonderlik.
Raak ontslae van inhoud en houer in ooreenstemming met nasionale regulasies.

SPOEL DIE LEË HOUER DRIE MAAL SOOS VOLG: Keer die leë houer om oor 'n meng- of spuitenk en laat vir ten minste 30 sekondes leegloop totdat die vloei stadiger word tot 'n gedrup. Spoel die leë houer drie maal met skoon water gelyk aan 'n minimum van 30 % van die volume van die houer. Voeg spelwater by die inhoud van die spuitenk. Bied houer aan vir herwinning of perforeer dit en raak daarvan ontslae by 'n gemagtigde opvulterrein. Moenie houer vir enige ander doel gebruik nie.

RELEVANTE STOWWE:

Waterstofperoksied (Cas no: 7722-84-1) Oksiderende Vloeistowwe Kategorie 1, H271; Akute Giftigheid Mondelings Kategorie 4, H302; Akute Giftigheid Inaseming Kategorie 4, H332; Velirritasie Kategorie 1A, H314 (21,5 – 24,0 % m/v).

Perasynsuur (Cas no: 79-21-0) Vlambare Vloeistowwe Kategorie 3, H226; Organiese Peroksiede Kategorie D, H242; Akute Giftigheid Mondelings Kategorie 4, H302; Akute Giftigheid Vel Kategorie 4, H312; Velirritasie Kategorie 1A, H314; Akute Giftigheid Inaseming Kategorie 4, H332; Waterlewend Akut Kategorie 1, H400; STOT SE 3; H335 (13,5 – 15,0 % m/v).

Asynsuur (Cas no: 64-19-7) Oogirritasie Kategorie 2, H319; Velirritasie Kategorie 2, H315 (< 25 % m/v).

NOODHULP BEHANDELING

In geval van 'n ongeluk of as jy onwel voel, verkry onmiddellik mediese advies en wys hierdie ETIKET waar moontlik

INASEMING:	Neem die slagoffer weg van die onmiddellike bron van blootstelling. Hou die pasiënt warm en rustig. Dien suurstof of kunsmatige asemhaling toe indien nodig. Verkry mediese hulp onmiddellik.
VEL:	Spoel dadelik af met seep en baie water terwyl alle gekontameneerde klere en skoene verwyder word. Kry mediese hulp indien irritasie ontwikkel en voortduur. Maak seker pasiënt bly warm. Was gekontameneerde klere met baie water voor hergebruik, om brandgevaar te voorkom.
OË:	Spoel oë onmiddellik met skoon lopende water vir ten minste 15 minute terwyl die ooglede vanmekaar gehou word. Verwyder kontaklense indien aanwesig en maklik om te doen. Hou aan met spoel terwyl ooglede vanmekaar gehou word. Kry onmiddellik mediese hulp. Raadpleeg onmiddellik 'n oogkundige indien simptome voortduur.
OPNEMING:	Spoel mond uit. Gee dadelik groot hoeveelhede water om te drink. Kry mediese hulp. MOENIE vomering indueer nie. Indien vomering plaasvind, moet aspirasie van die braaksel in die lugweg en longe ten alle koste vermy word. Wanneer u met bytende/korrosiewe stowwe te doen het, stel die noodgeneesheer onmiddellik in kennis.
NOTA AAN GENEESHEER:	Behandel simptome. Mediese waarneming word vir 24 tot 48 uur na asemhaling oorblootstelling aanbeveel, aangesien pulmonale edeem vertraag kan word.
MOONTLIKE GESONDHEIDSGEVOLGE, AKUUT EN VERTRAAGD:	Gevolge van blootstelling (inaseming, opneming of velkontak) aan stof kan vertraag wees.
SIMPTOME VAN MENSLIKE VERGIFTIGING:	Langdurige of herhaalde blootstelling kan oogskade, irritasie van die lugweë en vel veroorsaak.

PRODUK – VERDUN SOOS PER ETIKET

OPNEMING:	Spoel mond uit. Drink 'n groot hoeveelheid water. Kry mediese hulp indien simptome voorkom.
INASEMING:	Neem die slagoffer weg van die onmiddellike bron van blootstelling. Hou die pasiënt warm en rustig. Dien suurstof of kunsmatige asemhaling toe indien nodig. Verkry mediese hulp onmiddellik.
OË:	Spoel oë onmiddellik met skoon lopende water vir ten minste 15 minute terwyl die ooglede vanmekaar gehou word. Verwyder kontaklense indien aanwesig en maklik om te doen. Hou aan met spoel. Kry mediese hulp indien irritasie voortduur.
VEL:	Oplossings met HYPERCIDE konsentrasies van < 1 % behoort nie die vel te beskadig nie. Indien simptome voorkom, was met neutrale seep. Kry mediese hulp indien irritasie voortduur.

WEERSTANDSWAARSKUWING

Vir weerstandbestuur: **HYPERCIDE** is 'n groeppode (NC – nie geklassifiseer) bakteriesied en swamdoder wat oor die algemeen as 'n lae risiko beskou word, en weerstand onbekend is. Nietemin om weerstand te verlaag is dit goeie praktyk om produkte in 'n spuitprogram af te wissel.

Om swamdoder weerstand te vertraag:

- ▶ vermy die herhaaldelike gebruik van swamdoders met dieselfde swamdoder groeppode. Wissel af met, of gebruik tenkingsels van produkte in verskillende swamdoder groeppodes,
- ▶ raadpleeg toepaslike individuele produktetikette wanneer daar afgewissel word, of tenkingsels gemaak word, met produkte in ander swamdoder groeppodes,
- ▶ integreer ander beheermaatreëls (chemies, verbouing, biologies) in siektebeheer programme.

WERKINGSWYSE

Waterstofperoksied en perasynsuur behoort aan die FRAC groeppode NC: Chemikalieë met nie gespesifiseerde werkingsmetode. Oor die algemeen word NC groeppodes as 'n lae-risiko groep beskou, waar die weerstand tans onbekend is.

GEBRUIKSBEPERKINGS

WAARSKUWING:

MATERIALE OM TE VERMY: Roes, reduseermiddels, metaalchloriede en basisse. Moenie hierdie produk in gegalvaniseerde yster- of ongevoerde staalhouers of spuitente meng, berg of toedien nie.

GEBRUIKSAANWYSINGS – gebruik slegs soos aangedui

VERENIGBAARHEID:

Die verenigbaarheid van **HYPERCIDE** met ander landbouchemikalieë hang af van die formulering van die betrokke produkte asook die kwaliteit van die water wat gebruik word. Dit word dus aanbeveel om altyd eers 'n fisiese verenigbaarheidstoets (flës toets) uit te voer voor aanwending. **HYPERCIDE** kan in mengsels saam met Teacher 230 SC (Wet 36 van 1947, Reg. Nr. L9919), ICA Prochloraz 450 EC (Wet 36 van 1947, Reg. Nr. L8478), ICA Thiabendazole (Wet 36 van 1947, Reg. Nr. L7784) en Protector 400 SC (Wet 36 van 1947, Reg. Nr. L8606) toegedien word. Raadpleeg altyd individuele produketikette oor wat in 'n mengsel saam met **HYPERCIDE** gebruik gaan word.

HYPERCIDE is 'n saniteermiddel en nie verenigbaar met sekere biologiese plaagdoders nie. **HYPERCIDE** is ook nie verenigbaar met plaagdoders wat metale bevat nie.

MENGINSTRUKSIES:

Maak die mengtenk halfvol met skoon water en voeg die vereiste volume **HYPERCIDE** by. Skud die **HYPERCIDE** houër deeglik voor gebruik en meng die aanbevole hoeveelheid vooraf in ten minste 10 liter water. Meng enige ander produk(te) vooraf *afsonderlik* op dieselfde wyse. Terwyl mengtenk geroer word, voeg die vooraf gemengde produkte in die volgende volgorde by: benatbare poeiers, wateroplosbare korrels, suspensie konsentrate, emulsifiseerde konsentrate en oplosbare konsentrate laaste. Maak die mengtenk vol met die benodigde hoeveelheid skoon water terwyl geroer word. Roer aanhoudend voor en gedurende toediening. MOENIE die tenkmengsel laat afsak nie en moenie die aangemaakte spuitmengsel vir 'n geruime tyd, bv. oornag, in die spuittenk laat, sonder om te roer nie.

Algemene instruksies:

- ▶ Tydens na-oes behandeling van appels en pere, avokado's, sitrus, mango vrugte en aartappelknolle, moet die vrugte nie vir lang periodes (periodes langer as aangedui) in mengsels gelaat word nie. Dit kan skade aan die skil van sensitiewe vrugte veroorsaak.
- ▶ Dit is altyd raadsaam om 'n klein hoeveelheid vrugte te toets vir moontlike sensitiwiteit teen **HYPERCIDE**, aangesien vrugtesensitiwiteit deur omgewingstoestande (bv. droogte, versuiping, uiterste temperature, wind, ens.) beïnvloed kan word.
- ▶ Vervang mengsels wanneer dit sigbaar vuil is.
- ▶ Vrugte wat nie direk na oes behandel word nie, **MOET** voor behandeling **vooraf gesorteer word**, aangesien verrottende vrugte siektedruk sal verhoog en effektiewe beheer nie moontlik sal wees nie.
- ▶ Neem kennis: **HYPERCIDE** voorkom na-oesbederf in avokado's, sitrus, mango's, kernvrugte en aartappelknolle wat veroorsaak word deur infeksies wat tydens die wasproses voorkom. Die toediening van geregistreerde produkte in 'n boord of veldspuitprogram om boord-/veldinfeksies te beheer, is steeds nodig. Die toediening van na-oes swamdoders kan steeds nodig wees, afhangende van die siektedruk.
- ▶ **HYPERCIDE** kan in mengsels saam met Evolve 480 SC (Wet 36 van 1947, Reg. Nr. L10644), ImazaCure 750 SG (Wet 36 van 1947, Reg. Nr. L7928), Teacher 230 SC (Wet 36 van 1947, Reg. Nr. L9919), ICA Prochloraz 450 EC (Wet 36 van 1947, Reg. Nr. L8478), ICA Thiabendazole (Wet 36 van 1947, Reg. Nr. L7784), StrobiCure 250 SC (Wet 36 van 1947, Reg. Nr. L10577) en Protector 400 SC (Wet 36 van 1947, Reg. Nr. L8606) toegedien word, mits individuele produk etiket aanbevelings gevolg word.
- ▶ In veldtoepassings beheer **HYPERCIDE** siekteontwikkeling deur patogene op kontak te vernietig. Toepassings moet voor simptoontwikkeling begin. Gereelde monitering van behandelde gewasse is noodsaaklik. Skakel oor na 'n kuratiewe program met swamdoders met verskillende werkingwyses wanneer skade ekonomiese drempels bereik.
- ▶ **HYPERCIDE** behandelings dra nie by tot plaagdoderresidue nie.

TOEDIENINGSTABEL			
GEWAS	SIEKTE	DOSIS PER 100 & WATER	OPMERKING
AARBEIE Veldtoediening	Grys-skimmel (<i>Botrytis cinerea</i>) onderdrukking. Poeieragtige meeldou (<i>Sphaerotheca pannosa</i>) beheer.	200 mℓ	Inkorporeer HYPERCIDE as deel van 'n voorkomende spuitprogram en dien elke 7 dae toe. Begin toedienings voordat die eerste simptome verskyn. Dien as 'n voldekbepuiting toe. HYPERCIDE maak spore op kontak dood, daarom is deeglike gewasdekking van kardinale belang. Deeglike inspeksie van die gewasse moet gereeld plaasvind en sodra 'n verhoogde siekteontwikkeling op blare en vrugte waargeneem word, moet daar na 'n kuratiewe bestuursprogram oorgeslaan word, wat swamdoders met verskillende werkingwyses insluit. Behandelde plante kan direk na toediening ge-oes word, sodra dit heeltemal droog is. <u>Grys-skimmel</u> In veldproewe is siekte-onderdrukking van 57 – 72 %, na vyf (5) toedienings teen 7 dae intervalle, waargeneem. <u>Poeieragtige meeldou</u> In veldproewe is siektebeheer van 91 – 94 %, na vyf (5) toedienings teen 7 dae intervalle, waargeneem.
Aartappelknolle Na-oes behandeling	Bakteriese sagtevrot (<i>Pectobacterium</i>) na-oes verrotting onderdrukking as gevolg van infeksies wat in die waswater voorkom.	200 – 400 mℓ Afhangende van inokulumdruk	Behandel knolle vir 3 – 5 minute. Vervang mengsel wanneer dit vuil is. Gebruik hoër dosis onder toestande wat bevorderlik is vir hoë siektedruk. Handhaaf HYPERCIDE konsentrasie teen aanbevole dosis. Moniteer die HYPERCIDE konsentrasie met die " HYPERCIDE Test Kit" of " HYPERCIDE Test Strips", en vul die konsentrasie dienooreenkomstig aan.
Appels en Pere Na-oes behandeling	<i>Penicillium expansum</i> na-oes bederf, as gevolg van infeksies wat in drenk-, spoel- of waswater voorkom.	200 – 400 mℓ Afhangende van inokulumdruk	Doop of deurdrenk vrugte. Vir die beste resultate, hou vrugte vir ten minste 3 minute nat. Gebruik die hoër dosis onder toestande van hoë siektedruk. Handhaaf HYPERCIDE konsentrasie teen aanbevole dosis. Moniteer die HYPERCIDE konsentrasie met die " HYPERCIDE Test Kit" of " HYPERCIDE Test Strips", en vul die konsentrasie dienooreenkomstig aan.

Boordtoediening	Poeieragtige meeldou (<i>Podosphaera leucotricha</i>) beheer.	400 mℓ	Inkorporeer HYPERCIDE as deel van 'n voorkomende spuitprogram en dien elke 7 – 14 dae toe. Begin toedienings voordat die eerste simptome verskyn. Dien as 'n voldekbepuiting toe en verseker deeglike bedekking (sien onder die boomryvolume (BRV) berekening). Behandelde bome kan direk na toediening ge-oes word, sodra die bome heeltemal droog is. In boordproewe is beheer van 75 – 93 % na vyf (5) toedienings teen 7 – 14 dae intervalle, waargeneem.
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Water volume (ℓ) per hektaar (ha) benodig vir voldekbepuiting volgens boomryvolume (BRV) berekening:

Boomhoogte en -deursnee moet in die somer gemeet word wanneer bome in volle blom is. Gebruik die water volume per hektaar om die vereiste hoeveelheid **HYPERCIDE** per hektaar, afhange van die verskeie groeistadiums, te bereken. Dit is belangrik dat die korrekte hoeveelheid **HYPERCIDE** per hektaar toegedien word.

- **BRV (Groenpunt tot volblom)**
ℓ water/ha = [(Boomhoogte X Boomdeursnit X 937)/Rywydte] X 60 %
- **BRV (75 % blomblaarval tot een maand later – midseisoen)**
ℓ water/ha = [(Boomhoogte X Boomdeursnit X 937)/Rywydte] X 80 %
- **BRV (Midseisoen tot ná-oes, voor blaarval)**
ℓ water/ha = [(Boomhoogte X Boomdeursnit X 937)/Rywydte] X 100 %

Avokado's Na-oes behandeling	Antraknose (<i>Colletotrichum gloeosporioides</i>) na-oes bederf, as gevolg van infeksies wat in die waswater, stort- of spuitwater voorkom.	100 mℓ	Doop (tot 3 minute) of deurdrenk vrugte. Handhaaf HYPERCIDE konsentrasie teen aanbevole dosis. Monitor die HYPERCIDE konsentrasie met die “ HYPERCIDE Test Kit” of “ HYPERCIDE Test Strips”, en vul die konsentrasie dienooreenkomstig aan.
Mango's Na-oes behandeling	Antraknose (<i>Colletotrichum gloeosporioides</i>), na-oes bederf as gevolg van infeksies wat in die dompelbad of swamdoderwatermengsels voorkom.	100 mℓ	Doop vrugte vir tot 5 minute. Handhaaf HYPERCIDE konsentrasie teen aanbevole dosis. Monitor die HYPERCIDE konsentrasie met die “ HYPERCIDE Test Kit” of “ HYPERCIDE Test Strips”, en vul die konsentrasie dienooreenkomstig aan.
PAMPOENGEWASSE Veldtoediening	Poeieragtige meeldou (<i>Podosphaera xanthii</i>) onderdrukking.	800 mℓ	Inkorporeer HYPERCIDE as deel van 'n voorkomende spuitprogram en dien elke 7 dae toe. Begin toedienings voordat die eerste simptome verskyn. HYPERCIDE maak spore op kontak dood, dus is deeglike gewasdekking van kardinale belang. Deeglike inspeksie van die gewasse moet gereeld plaasvind en sodra 'n verhoging in siekteontwikkeling waargeneem word, moet daar na 'n kuratiewe bestuursprogram oorgeslaan word, wat swamdoders met verskillende werkingswyses insluit. Behandelde gewasse kan direk na toediening ge-oes word, sodra dit heeltemal droog is. In veldproewe is siekte-onderdrukking van 53 – 63 %, na drie (3) toedienings teen 7 dae intervalle, waargeneem.
Sitrus Na-oes behandeling	Penicillium (<i>Penicillium</i> spp.) en suurvrot (<i>Galactomyces citri-aurantii</i>) na-oes bederf as gevolg van infeksies wat plaasvind in die drenk-, dompel-, opspuit-, swamdoder- of in-lyn-“drench” watermengsels.	100 mℓ	Doop (tot 3 minute) of deurdrenk vrugte na-oes of ontgroening. Handhaaf HYPERCIDE konsentrasie teen aanbevole dosis. Monitor die HYPERCIDE konsentrasie met die “ HYPERCIDE Test Kit” of “ HYPERCIDE Test Strips”, en vul die konsentrasie dienooreenkomstig aan.
Boordtoediening	Vermindering van vruggedraagde <i>Penicillium digitatum</i> inokulum wat bydra tot voor – en na-oes groenskimmel verrotting.	200 mℓ	As deel van boordsanitasie, dien 'n enkele HYPERCIDE bespuiting net voor oes toe, nadat gesnoerde vrugte vanaf die boordvloer verwyder is. Aangesien HYPERCIDE patogeenspore met kontak saniteer, is deeglike gewasdekking van kardinale belang. Die toevoeging van 'n geskikte adjuvant*, teen die geregistreerde dosis, kan die effektiwiteit van HYPERCIDE verbeter. In boordproewe het HYPERCIDE groenskimmel in gewonde na-oes vrugte met > 59 % onderdruk. Die toevoeging van 'n adjuvant het die onderdrukkingsvermoë tot > 69 % verhoog. Behandelde bome kan direk na toediening ge-oes word, sodra die bome heeltemal gedroog is. Droë vrugte moet so spoedig as moontlik na behandeling ge-oes word.

			Vir effektiewe bestuur van na-oes verrotting, behandel die geoesde vrugte binne 12 – 24 uur met 'n geregistreerde na-oes swamdoder volgens etiket aanbevelings.
Wingerd Wingerd aanwending	Poeieragtige meeldou (<i>Erysiphe necator</i>) onderdrukking.	400 mℓ	Sluit in by 'n voorkomende spuitprogram wat elke 10 – 14 dae toegedien word, wat begin wanneer lote 5 – 10 cm lank is. Dien toe as 'n volle dekbespuiting, verseker deeglike bedekking. Tafeldruive: Dien toe in 500 – 1500 ℓ water/ha, afhangend van blaaroppervlakte teenwoordig. Wyndruive: Dien toe in 300 – 1500 ℓ water/ha, afhangend van blaaroppervlakte teenwoordig.

HypC-002