

# STRONGARM® 840 WG

## HERBICIDE

Registration number/Registrasie Nommer L8663 Act/Wet Nr. / No. 36 of / van 1947

**READ THE LABEL BEFORE USE**

**KEEP OUT OF REACH OF CHILDREN AND ANIMALS**

GROUP	B	HERBICIDES
A WATER DISPERSIBLE GRANULE HERBICIDE FOR USE ONLY IN TANK MIXTURES AS INDICATED FOR PRE-EMERGENCE CONTROL OF ANNUAL GRASSES, BROADLEAF WEEDS AND UNDER CERTAIN CONDITIONS, ALSO YELLOW NUTSEGE IN GROUNDNUTS AND SOYBEANS.		'N WATERDISPERGEERBARE KORREL ONKRUIDDODER VIR GEBRUIK SLEGS IN TENKMENGSELS SOOS AANGEDUI VIR VOOR-OPKOMSBEHEER VAN EENJARIGE GRASSE, BREëBLAARONKRUIDE EN ONDER SEKERE TOESTANDE OOK GEELUINTJIES IN GRONDBONE EN SOJABONE.



**WARNING**

**HAZARD STATEMENTS:**

Causes mild skin irritation.  
Very toxic to aquatic life with long lasting effects.

**PRECAUTIONARY STATEMENTS:**

If skin irritation occurs: Get medical help.  
Collect spillage.  
Dispose of contents/container in accordance with applicable regulations.

**Active Ingredient / Aktiewe Bestanddeel**

diclosulam (triazolopyrimidine sulfonanilide) ..... 840 g/kg ..... diclosulam (triasolopirimidien sulfonanilied)

**NET MASS** ..... g ..... **NETTO MASSA**

**REGISTRATION HOLDER / REGISTRASIEHOUER**  
CORTEVA AGRISCIENCE RSA (PTY) LTD / (EDMS) BPK  
REG NO 1991/003030/07  
Lakefield Office Park, Block A, 2<sup>nd</sup> Floor  
272 West Avenue, CENTURION, 0157 South Africa  
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Batch Number .....  ..... Lotnommer

Date of Manufacture .....  ..... Vervaardigingsdatum

**UN NO: 3077**

Poisons Helpline: +27(0)861-555-777  
Local Emergency No: +27(0)82-895-0621 (SA only)  
24 Hour Emergency Tel No: +32-3-575-5555  
Information Hotline Tel No: +27(0)12 683-5700

## **WARNINGS:**

### **HAZARD STATEMENTS:**

Causes mild skin irritation.  
Very toxic to aquatic life with long lasting effects.

Handle with care.  
Harmful if swallowed.  
May irritate the eyes.  
Store in a cool place.  
Store away from food and feeds.  
Keep out of reach of children, uninformed persons, and animals.

**RE-ENTRY INTERVAL:** Do not enter treated area until spray deposit has dried unless wearing protective clothing.

## **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 weeds 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.**

## **PRECAUTIONS:**

### **PRECAUTIONARY STATEMENTS:**

If skin irritation occurs: Get medical help.  
Collect spillage.  
Dispose of contents/container in accordance with applicable regulations.

Do not inhale the spray mist.  
Avoid skin and eye contact. Wear rubber gloves and face shield when handling the concentrate.  
Wash contaminated clothing after use.  
Wash with soap and water after use.  
Do not eat, drink, or smoke whilst mixing or applying the product or before washing hands and face.  
Avoid drift of spray mist onto other crops, grazing, rivers, dams, and areas not under treatment.  
Clean all mixing and application equipment after use and before using with other products.

- Rinse and flush application equipment thoroughly with water.
- Rinse a second time using a 1% solution of household ammonia.
- Allow the solution to stand in the spray tank for several hours but preferably overnight.
- Rinse at least twice with clean water.
- Do not use the applicator for applying products other than herbicides.
- Dispose of rinse water where it will not contaminate food, crops, grazing, rivers, dams or boreholes.

Prevent contamination of food, feed, drinking water and eating utensils.  
 Rinse the empty container three times with a volume of clean water equal to a minimum of 10 % of the container. Add the rinse water to the content of the spray tank.  
 Destroy empty container and never use it for any other purpose.

**RELEVANT SUBSTANCES:**

COMPONENT	CAS No.	Concentration (% w/w)
Diclosulam	145701-21-9	84
Aromatic hydrocarbons, C10-13, reaction products with branched nonene, sulfonated, sodium salts	1258274-08-6	>= 1 - < 3
dichloromethane	75-09-2	>= 0,3 - < 1
Quinoline Hydrochloride	530-64-3	>= 0,25 - < 0,3
methanol	67-56-1	>= 0,1 - < 0,3

**FIRST AID MEASURES:**

**Inhalation**

Move person to fresh air; if effects occur, consult a physician.

**Skin contact**

Take off contaminated clothing. Rinse skin immediately with plenty of water for 15-20 minutes. Call a poison control center or doctor for treatment advice.

Suitable emergency safety shower facility should be available in work area.

**Eye contact**

Hold eyes open and rinse slowly and gently with water for 15-20 minutes. Remove contact lenses, if present, after the first 5 minutes, then continue rinsing eyes. Call a poison control center or doctor for treatment advice.

Suitable emergency eye wash facility should be available in work area.

**Ingestion**

No emergency medical treatment necessary.

**RESISTANCE WARNINGS**

**STRONGARM® 840 WG** is a group code B herbicide. Any weed population may contain individuals naturally resistant to **STRONGARM® 840 WG** and other group code B herbicides. The resistant individuals can eventually dominate the weed population if these herbicides are used repeatedly. These resistant weeds may not be controlled by **STRONGARM® 840 WG** or any other group code B herbicide.

To delay herbicide resistance:

- Avoid exclusive repeated use of herbicides from the same herbicide group code. Alternate or use tank mixtures with registered products from different herbicide group codes.
- Integrate other control methods (chemical, cultural, biological) into weed control programs.
- Monitor each land on a seasonal basis to identify the development of resistance early.

For specific information on resistance management contact the registration holder of this product.

Corteva Agriscience™ cannot accept liability for any losses that may result from the failure of **STRONGARM® 840 WG** to control resistant weeds.

## RESTRICTIONS FOR USE

**STRONGARM® 840 WG** must be used as a tank mixture in combination with complementary herbicides as directed. Such tank mixtures may damage the crops to which applied under the following conditions:

- ❖ Planting depth of crop seed other than the optimum as recommended by the ARC Grain Crops Institute. This depth is 50–75 mm for groundnuts and 20–60 mm for soybeans (depending on seedbed and soil conditions), these planting depths must be adhered to.
- ❖ Do not apply **STRONGARM® 840 WG** through any type of irrigation system.  
  
Flood irrigation can possibly result in crop injury and can reduce weed control efficacy.
- ❖ Do not use **STRONGARM® 840 WG**:
  - on poorly drained soils or soils with a compaction layer. Water logging in the presence of herbicides could cause stand reduction and/or stunted growth, which may lead to yield reduction.
  - under conditions of heavy rain and/or irrigation on sandy or gravel soils.
  - under abnormally cold and / or abnormally wet conditions.
- ❖ Do not apply **STRONGARM® 840 WG** tank-mixtures to inbred parent plants of crop cultivars as well as experimental or newly released cultivars, without first consulting the manufacturer, distributor, or seed supplier in this regard.

**STRONGARM® 840 WG** in a tank mixture with RELAY™ SUPER 900 EC (L 8173) or ALACHLOR 384 EC or ALACHLOR 480 CS or METAGAN® GOLD (L 5748) must be applied prior to crop emergence, as directed.

Do not apply afore-mentioned **STRONGARM® 840 WG** tank mixtures post-emergence to groundnuts or soybeans.

When tank mixing other herbicides in combination with **STRONGARM® 840 WG** the warnings, precautions, use restrictions and directions for use on the labels of the herbicides concerned, must be fully adhered to.

## MINIMUM RECROPPING INTERVAL AND CROP ROTATION GUIDELINES

The minimum recropping interval is the time between the last application of **STRONGARM® 840 WG** in combination with complementary herbicide(s) and the anticipated date of planting a subsequent crop.

To avoid injury to subsequent crops the following recropping intervals should be observed:

TANK MIXTURE OF COMPLEMENTARY PRODUCT(S) + STRONGARM® 840 WG	FOLLOW-UP CROP							
	SOYBEANS	GROUND- NUTS	DRY BEANS	GRAIN SORGHUM	MAIZE	POTATOES	SUNFLOW ER	WHEAT, OATS, BARLEY
	RECROPPING INTERVAL (MONTHS)							
ALACHLOR 384 EC + <b>STRONGARM® 840 WG</b>	0	0	10	10	10	10	10	5
ALACHLOR 480 CS + <b>STRONGARM® 840 WG</b>	0	0	10	10	10	10	10	5
RELAY™ SUPER 900 EC + <b>STRONGARM® 840 WG</b>	3	0	10	10	10	10	10	5
METAGAN® GOLD + <b>STRONGARM® 840 WG</b>	0	0	10	10	10	10	10	5

### **Important**

- For all other crops a replanting interval of at least 24 months has to be observed preceded by a test planting.
- The above-mentioned waiting periods are valid only if:
  - a single application of **STRONGARM® 840 WG** per field per season was made.
  - the correct standard recommended dosage rate of **STRONGARM® 840 WG** in combination with complementary herbicide(s) according to the soil type was applied (regard label recommended rate as strictly the maximum usage rate of **STRONGARM® 840 WG** per season).
  - normal or above average rainfall and/or irrigation occurred during and following the season in which the application was made.
  - this rain and/or irrigation in the period after application of **STRONGARM® 840 WG** and prior to planting of the follow crop must have been well-distributed and must have totaled at least 350 mm.
- The land should always be deep ploughed before a follow crop is planted.

## WEEDS CONTROLLED

The following weeds in LIST A are normally controlled by pre-emergence applications of STRONGARM® 840 WG in a tank mixture with RELAY™ SUPER 900 EC (L 8173) or ALACHLOR 384 EC or ALACHLOR 480 CS or METAGAN® GOLD (L 5748) at the dosage rates indicated below:

### LIST A:

#### Broadleaved weeds:

<i>Amaranthus hybridus</i>	common pigweed
<i>Chenopodium album</i>	white goosefoot
<i>Chenopodium carinatum</i>	green goosefoot
<i>Cleome gynandra</i>	spider wisp
<i>Cleome monophylla</i>	spindlepod
<i>Galinsoga parviflora</i>	gallant soldier
<i>Schkuhria pinnata</i>	dwarf marigold
<i>Tribulus terrestris</i>	dubbeltjie

#### Annual grasses:

<i>Brachiaria eruciformis</i>	sweet signal grass
<i>Chloris virgata</i>	feathertop Chloris
<i>Dactyloctenium aegyptium</i> **	crowfoot
<i>Digitaria sanguinalis</i>	crab finger grass
<i>Echinochloa crus-galli</i>	barnyard grass
<i>Eleusine indica</i>	goose grass
<i>Panicum maximum</i>	common buffalo grass
<i>Panicum schinzii</i>	sweet buffalo grass
<i>Pseudobrachiaria deflexa</i> **	false signal grass
<i>Setaria pallide-fusca</i>	red bristle grass
<i>Setaria verticillata</i>	sticky bristle grass
<i>Tragus berteronianus</i> **	small carrot seed grass
<i>Tragus racemosus</i>	large carrot seed grass
<i>Urochloa mozambicensis</i> **	bushveld herringbone grass
<i>Urochloa panicoides</i>	herringbone grass

\*\* Control of these weeds limited to tank mixtures of STRONGARM® 840 WG with METAGAN® GOLD (L 5748) at the dosage rates indicated below.

Control of the following weeds in LIST B is variable following pre-emergence applications of STRONGARM® 840 WG in a mixture with RELAY™ SUPER 900 EC (L 8173) or ALACHLOR 384 EC or ALACHLOR 480 CS or METAGAN® GOLD (L 5748) at the dosage rates indicated below:

**LIST B:**

<i>Commelina benghalensis</i>	Bengal wandering Jew
<i>Crotolaria sphaerocarpa</i>	mealie Crotolaria
<i>Cyperus esculentus</i>	yellow nutsedge
<i>Datura ferox</i>	large thorn apple
<i>Datura stramonium</i>	common thorn apple
<i>Gisekia pharnacoides</i>	Gisekia
<i>Hibiscus trionum</i>	Bladderweed
<i>Ipomoea purpurea</i>	Common morning glory
<i>Portulaca oleraceae</i>	purslane
<i>Tagetes minuta</i>	khaki weed
<i>Xanthium strumarium</i>	cocklebur

**Important: Yellow nutsedge (*Cyperus esculentus*).**

The control of *Cyperus esculentus* can be improved provided the following conditions are met:

- ❖ Planting is immediately preceded by a thorough ploughing with a mouldboard plough.
- ❖ A relatively fine, even and firm seedbed is prepared.
- ❖ Herbicide application is followed by at least 15 mm (light soils) to 25 mm (heavy soils) of soft penetrating rain (or irrigation) to leach the herbicide into the soil prior to the emergence of *Cyperus esculentus* (normally 7–10 days after thorough ploughing). These conditions are more likely to occur during the latter half of the planting season (November).
- ❖ Rainfall following herbicide application but before emergence of *Cyperus esculentus* is necessary for optimum *Cyperus esculentus* control. For this reason, application of the tank mixture should be made at or immediately after planting into moist soil.
- ❖ When planting into dry soil (insufficient moisture for *Cyperus esculentus* germination) application of STRONGARM® 840 WG should be timed as close as possible to, but definitely before the first rains.

The control of the above-mentioned weeds in Lists A and B may be detrimentally affected under the following conditions:

- ❖ A poorly prepared seedbed.
- ❖ Soils with a pH (H<sub>2</sub>O) of less than 5 and an organic matter content of more than 3 %.
- ❖ Dry conditions directly after application or a lack of sufficient rain on heavy soils.
- ❖ Occurrence of soil erosion as a result of excessive rain, irrigation or wind erosion can result in poor weed control.

**NOTE:** STRONGARM® 840 WG mixtures control certain annual grasses and numerous broadleaf weeds as detailed in LISTS A and B above. Other annual weeds that were not present during the development trials with the products may also be controlled to a certain degree. The registration holder does not accept any responsibility for unlisted weeds.

## DIRECTIONS FOR USE

Use only as directed

### COMPATIBILITY

The compatibility of **STRONGARM® 840 WG** in combination with complementary products may be influenced by the formulation of the products involved as well as the quality of the water. Since the formulation of other products may change without the knowledge of Corteva Agriscience™, and water quality may vary from farm to farm, a physical compatibility test should always be carried out prior to application.

Always predetermine the compatibility of labeled tank mixtures of **STRONGARM® 840 WG** with water carrier by mixing small proportional quantities in advance.

### ALWAYS REFER TO PRODUCT LABELS.

#### NOTE:

- (i) **WHERE ONE OF THE ABOVE PRODUCTS IS USED IN A TANK MIXTURE WITH STRONGARM® 840 WG, FULL DETAILS FROM THE RELEVANT LABEL MUST BE OBTAINED AND ADHERED TO.**
- (ii) The compatibility of **STRONGARM® 840 WG** in tank mixtures with recommended products may be influenced by the formulation of these products. Since the formulation of other products may change without the knowledge of Corteva Agriscience™ and water quality may vary from farm to farm a physical compatibility test should always be carried out prior to application.

DO NOT mix with herbicides, insecticides, fungicides, fertilizers, or any other chemicals not recommended on the label.

Consult your local representative for details.

### MIXING INSTRUCTIONS

**STRONGARM® 840 WG** water dispersible granules are provided in water-soluble sachets that require thorough mixing. The product contained in each single sachet has a mass of 30 g. Ten individual sachets of 30 g each are packed into a foil overpack – a labeled and zippered reusable foil protective pouch. The foil pouch thus holds a total of 300 g product.

Do not remove water-soluble sachets from overpack except for immediate use. Do not handle the soluble sachets excessively or allow to contact water prior to use as this may cause rupturing. Keep unused sachets in the zippered foil overpack.



**STRONGARM® 840 WG** should be pre-mixed (slurried) with water. On addition of soluble sachets to a bucket of water stir immediately or allow to dissolve. Stir until the sachets are completely dissolved and granules are dispersed and add to a half-full spray tank of water. Rinse container used for pre-mixing and add rinse water to spray tank. Then add the required amount of complementary herbicide.

When MAMBA™ DMA 480 SL (L 8388) is included in a tank mixture it should be the last product added after all other products, including **STRONGARM® 840 WG** have been added.

Top up the spray tank with water until the final volume has been obtained.

Ensure thorough agitation of the mixture in the tank during mixing or spraying.

Tank mixtures must be sprayed out immediately and not allowed to stand in the spray tank.

## **APPLICATION**

### **Ground application:**

#### **At planting and post-plant pre-emergence (Fresh clean seedbed)**

**STRONGARM® 840 WG** in a tank mixture with complementary product(s) as recommended can be applied with any medium or high-volume sprayer, properly calibrated and which is equipped with an efficient agitation mechanism. Choice and arrangement of fan type spray nozzles should be such as to ensure even distribution and optimal recovery of the herbicide. The recommended amount of **STRONGARM® 840 WG** in a mixture with complementary product(s) should be applied in at least 200 liter water/ha, as an overall application.

If band treatment is practiced, proportionately less spray mixture must be used per hectare.

When planting into moist soil, **STRONGARM® 840 WG** must be applied in a mixture with RELAY™ SUPER 900 EC (L 8173), ALACHLOR 384 EC or ALACHLOR 480 CS or METAGAN® GOLD (L 5748) **within three (3) days after planting** (but preferably at planting) on a fine, even, firm, and freshly prepared seedbed free of weeds, excessive plant trash and large clots. The herbicide mixture should not be applied later than three (3) days after the final cultivation for seedbed preparation.

Deviation from the aforesaid seedbed conditions and/or application timing may result in less effective weed control. To obtain good results it is also necessary that application is followed within seven (7) days by 12–15 mm of rain or irrigation before the weeds emerge. If rainfall does not occur in time and weeds begin to emerge and develop, a shallow cultivation must be carried out to destroy these weeds and to mix the herbicide with the top 10–20 mm of the soil.

Cultivation equipment adjusted to run shallow and minimize soil movement will decrease the possibility of diluting or moving the herbicide from the weed control zone.

A rotary harrowing in the same direction of the rows may improve crop emergence if soil crusting is a problem, again minimize soil movement. To avoid possible stress to the crop of inadequate nutrition and to promote vigorous initial crop seedling growth ensure adequate fertilizer is placed near the seed at planting.

## **Glyphosate-tolerant soybeans ONLY (Reduced tillage seedbed)**

Application at planting or early post-planting after weeds have already emerged but **BEFORE** glyphosate-tolerant soybeans have emerged.

For minimum-tillage or no-tillage systems, when weeds have already emerged and are present at the time of application, MAMBA™ DMA 480 SL (L8388) may be added to the tank mixture of **STRONGARM® 840 WG** plus a registered grass herbicide.

This triple-product tank mixture may be applied at planting or early post-planting **PRIOR** to emergence of the soybeans.

Note that 12–15 mm of rain or irrigation is needed within seven (7) days after application to activate the residual weed control effect of **STRONGARM® 840 WG** plus a grass herbicide partner on newly emerging weeds.

Inadequate weed control of **STRONGARM® 840 WG** plus a grass herbicide could occur if the density of crop residues on the soil surface is high and/or due to high weed pressure and substantially this will shield the soil acting herbicides from coming into contact with the soil surface.

The post-emergence effect of glyphosate on smaller emerged weeds could also be reduced if they are shielded from the spray by dense crop residues and/or larger weeds.

First consult the supplier before spraying in such situations.

Rain within six (6) hours after application of the afore-mentioned tank mixtures will decrease the efficacy of MAMBA™ DMA 480 SL (L8388) and a follow-up treatment of MAMBA™ DMA 480 SL (L8388) will be needed to control the weeds.

### **APPLICATION RATES:**

#### **A. GROUNDNUTS (Pre-emergence):**

<b>% CLAY</b>	<b>STRONGARM® 840 WG (g/ha)</b>	<b>PLUS RELAY™ SUPER 900 EC (L/ha)</b>
0 – 10	10	0.75
11 - 20	15	1.0
21 - 30	20	1.0 – 1.5

**B. SOYBEANS (Pre-emergence):**

<b>% CLAY</b>	<b>STRONGARM® 840 WG (g/ha)</b>	<b>PLUS ALACHLOR 384 EC (L/ha)</b>	<b>OR PLUS ALACHLOR 480 CS (L/ha)</b>	<b>OR PLUS METAGAN® GOLD (L/ha)</b>
0 - 10	10	4.0	3.2	0.6 – 0.8
11 - 20	15	4.0 – 4.5	3.2 – 3.6	0.6 – 0.8
21 - 30	20	4.5 – 5.0	3.6 – 4.0	0.8 – 1.0
31 - 40	25	5.0	4.0	1.0 – 1.3
> 40	30	5.0	4.0	1.0 – 1.3

**METAGAN® GOLD (L 5748) is a Syngenta Group Company registered product and METAGAN® is a registered trademark of a Syngenta Group Company.**

**Local Emergency No: +27(0)82-895-0621 (SA only)  
24 Hour Emergency Tel No: +32-3-575-5555  
Information Hotline Tel No: +27(0)12 683-5700**

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## WAARSKUWINGS

### **RISIKO VERKLARINGS:**

Veroorsaak ligte velirritasie.  
Baie giftig vir waterlewe met langdurige effekte.

Hanteer versigtig.  
Skadelik wanneer ingesluk.  
Kan oë irriteer.  
Berg in 'n koel plek.  
Berg weg van voedsel en voer.  
Hou buite bereik van kinders, oningeligte persone en diere.

**HERBETREDING:** Moet nie behandelde gebied betree alvorens die spuitneerslag droog is nie, tensy beskermende oorklere gedra word.

### **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; kwaliteit van verdunningswater; verenigbaarheid met ander stowwe wat nie op die etiket aangedui is nie en die voorkoms van weerstand van die onkruid 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 effek op mens of dier of vir 'n gebrek aan prestasie van die betrokke middel 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.**

## VOORSORGMAATREËLS

### **VOORSORG VERKLARINGS:**

Indien velirritasie voorkom: Kry mediese hulp.  
Versamel verspilde produk.  
Raak ontslae van inhoud/houer in ooreenstemming met toepaslike regulasies.

Moet nie die spuitnewel inasem nie.  
Vermy kontak met die vel en oë. Dra rubberhandskoene en gesigmasker wanneer konsentraat hanteer word.  
Was besoedelde klere na gebruik.  
Was met seep en water na gebruik.  
Moet nie eet, drink of rook tydens vermenging of toediening van die produk of voordat die hande en gesig gewas is nie.  
Vermy spuitnewelwegdrywing na ander gewasse, weiveld, riviere, damme en plekke wat nie behandel moet word nie.  
Maak alle meng- en toedieningsapparaat skoon na gebruik en voordat dit met ander produkte gebruik word.

- Spoel toedieningsapparaat deeglik uit met water.
- Spoel uit 'n tweede keer met gebruik van 'n 1% huishoudelike ammoniakoplossing.
- Laat staan die oplossing in die spuittenk vir 'n paar uur, maar verkieslik oornag.

- Spoel ten minste twee keer met skoon water uit.
- Hierdie spuittoerusting moet nie gebruik word vir die toediening van enige ander chemikalieë nie, behalwe onkruidodders nie.
- Gooi spoelwater weg waar dit nie voedsel, gewasse, weiding, riviere, damme of boorgate sal besoedel nie.

Voorkom die besoedeling van voedsel, voer, drinkwater en eetgerei.

Spoel die leë houer drie keer uit met 'n volume skoon water gelykstaande aan 'n minimum van 10 % van die houer. Gooi die spoelwater by die inhoud van die spuittenk.

Vernietig die leë houer en moet dit nie vir enige ander doel gebruik nie.

### **RELEVANTE STOWWE:**

<b>KOMPONENT</b>	<b>CAS No.</b>	<b>Konsentraat (% w/w)</b>
Diclosulam	145701-21-9	84
Aromatiese koolwaterstowwe, C10-13, reaksieprodukte met vertakte noneen, gesulfoneerde, natriumsoute	1258274-08-6	$\geq 1 - < 3$
dichloormetaan	75-09-2	$\geq 0,3 - < 1$
Kinolien hidrochloried	530-64-3	$\geq 0,25 - < 0,3$
metanol	67-56-1	$\geq 0,1 - < 0,3$

### **NOODHULPMAATREËLS**

#### **Inaseming**

Beweeg die persoon na vars lug; indien effekte voorkom, raadpleeg 'n geneesheer.

#### **Velkontak**

Trek besmette klere uit. Spoel vel dadelik met baie water vir 15-20 minute. Bel 'n gifbeheersentrum of geneesheer vir behandelingsadvies.

Geskikte noodveiligheidsstortfasiliteit moet in die werksarea beskikbaar wees.

#### **Oogkontak**

Hou oë oop en spoel stadig en saggies uit met water vir 15-20 minute. Verwyder kontaklense, indien teenwoordig, na die eerste 5 minute, gaan dan voort om oë uit te spoel.

Bel 'n gifbeheersentrum of geneesheer vir behandelingsadvies.

Geskikte nood-oogspoelfasiliteit moet in die werkarea beskikbaar wees.

#### **Inname**

Geen mediese noodbehandeling nodig nie.

### **WEERSTANDSWAARSKUWING**

**STRONGARM® 840 WG** is 'n groepkode B onkruidodder. Enige populasie van 'n spesifieke onkruid mag individue insluit wat 'n natuurlike weerstand teen **STRONGARM® 840 WG**, of enige ander groepkode B onkruidodders het. Indien hierdie onkruidodders herhaaldelik gebruik word, kan die weerstandbiedende individue uiteindelik die onkruidpopulasie oorheers. Hierdie weerstandbiedende onkruid sal waarskynlik nie deur **STRONGARM® 840 WG** of enige ander groepkode B onkruidodder beheer word nie.

Om weerstand teen onkruidodders te vertraag:

- Vermoed die eksklusiewe herhaaldelike gebruik van onkruidodders met dieselfde groepkode. Wissel af met, of gebruik tenkmengsels van geregistreerde produkte in verskillende onkruidoddergroepcodes.
- Integreer ander beheermaatreëls, (chemies, verbouing, biologies) in onkruid-beheerprogramme.
- Monitor elke land op 'n seisoenale basis om die ontstaan van weerstand vroegtydig te identifiseer.

Vir spesifieke inligting oor weerstandsbestuur, kontak die registrasiehouer van hierdie produk.

Corteva Agriscience™ aanvaar geen aanspreeklikheid ten opsigte van enige verlies wat mag ontstaan indien **STRONGARM® 840 WG** nie weerstandbiedende onkruid beheer nie.

## GEBRUIKSBEPERKINGS

**STRONGARM® 840 WG** moet as 'n tenkmengsel in kombinasie met komplementêre produkte gebruik word soos aanbeveel. Sulke tenkmengsels mag die gewasse waaraan dit toegedien is, onder die volgende toestande beskadig:

- ❖ Plantdiepte van gewassaad ander dan die optimum soos deur die LNR, Instituut vir Graangewasse voorgeskryf. Hierdie dieptes is 50–75 mm vir grondbone en 20–60 mm vir sojabone (afhangend van die saadbed en grondtoestande), hierdie plantdieptes moet nagekom word.
- ❖ Moenie **STRONGARM® 840 WG** deur enige tipe besproeiingstelsel toedien nie. Vloedbesproeiing kan moontlike gewasskade veroorsaak sowel as die effektiwiteit van onkruidbeheer verlaag.
- ❖ Moenie **STRONGARM® 840 WG** gebruik:
  - op swak gedreineerde gronde of gronde met 'n kompaksielaag. Versuip-toestande in die verteenwoordigheid van onkruidodders sal tot verminderde stand en/of vertraagde groei lei, wat oesverlies tot gevolg mag hê.
  - onder toestande van baie reën en/of besproeiing op sanderige of gruiserige gronde.
  - onder abnormale koue en/of abnormale nat toestande.
- ❖ Moenie **STRONGARM® 840 WG** tenkmengsels toedien aan ingeteelde ouerplante van gewaskultivars, asook proef of nuutvrygestelde kultivars sonder om eers die vervaardiger, verspreider of saadverskaffer in hierdie verband te raadpleeg nie.

**STRONGARM® 840 WG** in tenkmengsel met RELAY™ SUPER 900 EC (L8173) of ALACHLOR 384 EC of ALACHLOR 480 CS of METAGAN® GOLD (L 5748) moet voor-opkoms van die gewas toegedien word, soos aanbeveel.

Moenie bogenoemde **STRONGARM® 840 WG** tenkmengsels na-opkoms aan grondbone of sojabone toedien nie.

Wanneer tenkmengsels van **STRONGARM® 840 WG** en ander onkruidodders gemaak word, moet die waarskuwings, voorsorgmaatreëls, gebruiksbepelkings en -aanwysings soos vermeld op die betrokke etikette sorgvuldig nagekom word.

## MINIMUM WAGPERIODES EN WISSELBOU-AANWYSINGS

Die minimum wagperiode is die tydsverloop tussen die laaste toediening van **STRONGARM® 840 WG** in kombinasie met komplementêre onkruidodder(s) tot die verwagte tyd van aanplanting van 'n opvolggewas.

Om skade aan opvolggewasse te voorkom, moet die volgende wagperiodes in ag geneem word:

TENKMENGSEL VAN KOMPLEMENTÊRE PRODUK(TE) + STRONGARM® 840 WG	OPVOLGGEWAS							
	SOJABONE	GROND- BONE	DROË BONE	GRAAN- SORGHUM	MIELIES	AARTAPPELS	SONNEBLOM	KORING, HAWER, GARS
	WAGPERIODE (MAANDE)							
ALACHLOR 384 EC + <b>STRONGARM® 840 WG</b>	0	0	10	10	10	10	10	5
ALACHLOR 480 CS + <b>STRONGARM® 840 WG</b>	0	0	10	10	10	10	10	5
RELAY™ SUPER 900 EC + <b>STRONGARM® 840 WG</b>	3	0	10	10	10	10	10	5
METAGAN® GOLD + <b>STRONGARM® 840 WG</b>	0	0	10	10	10	10	10	5

### Belangrik

- Vir alle ander gewasse word 'n wagperiode van ten minste 24 maande aanbeveel, voorafgegaan deur 'n toetsplanting.
- Bogenoemde wagperiodes geld slegs indien:
  - 'n enkeltoediening van **STRONGARM® 840 WG** per land per seisoen gebruik was.
  - die korrekte hoeveelheid **STRONGARM® 840 WG** in kombinasie met komplementêre produk(te) per grondsoort toegedien is (beskou etiket-aanbevole dosis as streng die maksimum gebruiksdosis van **STRONGARM® 840 WG** per seisoen).
  - normale of bogemiddelde reënval en/of besproeiing gedurende die seisoen waarin die toediening gemaak is en daarna voorgekom het.
  - hierdie reën en/of besproeiing in die periode na toediening van **STRONGARM® 840 WG** en voordat die opvolggewas geplant word, moes goed versprei gewees het en moes ten minste 350 mm reën en/of besproeiing in totaal gewees het.
- Die land moet altyd diep geploeg word voordat 'n opvolggewas geplant word.

## ONKRUIDE WAT BEHEER WORD

Die volgende onkruid in LYS A word normaalweg beheer deur voor-opkoms toedienings van STRONGARM® 840 WG in tenkmengsels met RELAY™ SUPER 900 EC (L 8173) of ALACHLOR 384 EC of ALACHLOR 480 CS of METAGAN® GOLD (L5748) teen die toedieningshoeveelhede soos hieronder aangedui:

### LYS A:

#### Breëblaaronkruid:

<i>Amaranthus hybridus</i>	gewone misbredie
<i>Chenopodium album</i>	withondebossie
<i>Chenopodium carinatum</i>	groenhondebossie
<i>Cleome gynandra</i>	snotterbelletjie
<i>Cleome monophylla</i>	rusperbossie
<i>Galinsoga parviflora</i>	knopkruid
<i>Schkuhria pinnata</i>	kleinkakiebos
<i>Tribulus terrestris</i>	dubbeltjie

#### Eenjarige grasse:

<i>Brachiaria eruciformis</i>	litjiesinjaalgras
<i>Chloris virgata</i>	witpluimgras
<i>Dactyloctenium aegyptium</i> **	hoenderspoor
<i>Digitaria sanguinalis</i>	kruisvingergras
<i>Echinochloa crus-galli</i>	hanepootmanna
<i>Eleusine indica</i>	jongosgras
<i>Panicum maximum</i>	gewone buffelsgras
<i>Panicum schinzii</i>	soetbuffelsgras
<i>Pseudobrachiaria deflexa</i> **	bastersinjaalgras
<i>Setaria pallide-fusca</i>	rooiborselgras
<i>Setaria verticillata</i>	klitsborselgras
<i>Tragus berteronianus</i> **	kleinwortelsaadgras
<i>Tragus racemosus</i>	grootwortelsaadgras
<i>Urochloa mozambicensis</i> **	bosveldbeesgras
<i>Urochloa panicoides</i>	tuin Urochloa

\*\* Beheer van hierdie onkruid is beperk tot tenkmengsels van STRONGARM® 840 WG met METAGAN® GOLD (L 5748) teen die toedieningshoeveelhede soos hieronder aangedui.



Onkruid in LYS B word wisselvallig beheer deur voor-opkoms toedienings van STRONGARM® 840 WG in mengsel met RELAY™ SUPER 900 EC (L8173) of ALACHLOR 384 EC of ALACHLOR 480 CS of METAGAN® GOLD (L 5748) teen die toedieningshoeveelhede soos hieronder aangedui:

**LYS B:**

<i>Commelina benghalensis</i>	wandelende Jood
<i>Crotolaria sphaerocarpa</i>	mielie Crotolaria
<i>Cyperus esculentus</i>	geeluintjie
<i>Datura ferox</i>	grootstinkblaar
<i>Datura stramonium</i>	stinkblaar
<i>Gisekia pharnacoides</i>	Gisekia
<i>Hibiscus trionum</i>	Terblansbossie
<i>Ipomoea purpurea</i>	purperwinde
<i>Portulaca oleraceae</i>	gewone porslein
<i>Tagetes minuta</i>	kakiebos
<i>Xanthium strumarium</i>	kankerroos

**Belangrik: Geeluintjie (*Cyperus esculentus*).**

Die beheer van *Cyperus esculentus* kan verbeter word deur aan die volgende voorwaardes te voldoen:

- ❖ Die plantproses onmiddellik voorafgegaan word deur 'n deeglike ploegbewerking met 'n skaarploeg.
- ❖ 'n Relatiewe fyn, egalige en ferm saadbed voorberei word.
- ❖ Die onkruidodder toediening gevolg word deur minstens 15 mm (ligte grond) tot 25 mm (swaar grond) sagte deurdringende reën (of besproeiing) om die onkruidodder in die grond in te loog voordat *Cyperus esculentus* opkom (gewoonlik 7–10 dae na deeglike grondbewerking). Die kans vir hierdie toestande om voor te kom is groter tydens die laaste helfte van die plantseisoen (November).
- ❖ Reënval na onkruidodder toediening, maar voor *Cyperus esculentus* opkoms, is noodsaaklik vir optimale *Cyperus esculentus* beheer. Gevolglik moet die tenkmengsel tydens of onmiddellik na die plantproses in klam grond toegedien word.
- ❖ Wanneer in droë grond geplant word (onvoldoende vog om *Cyperus esculentus* te laat ontkiem), moet die toediening van STRONGARM® 840 WG uitgestel word tot so na as moontlik aan, maar beslis voor die eerste reën.

Die beheer van bogenoemde onkruid in lyste A en B mag nadelig beïnvloed word onder die volgende toestande:

- ❖ Swak voorbereide saadbed.
- ❖ Gronde met 'n pH (H<sub>2</sub>O) van minder as 5 en 'n organiese materiaal inhoud van meer as 3 %.
- ❖ Droë toestande direk na toediening of onvoldoende reënval op swaar grond.
- ❖ Die voorkoms van gronderosie as gevolg van oormatige reën, besproeiing of wind waaiskade kan lei tot swak onkruidbeheer.

**NOTA:** **STRONGARM® 840 WG** tenkmengsels verskaf beheer van sekere eenjarige grasse en vele breëblaaronkruides soos weergegee in LYTE A en B hierbo. Ander eenjarige onkruides wat nie tydens die ontwikkelingsproewe met die middels voorgekom het nie, kan ook moontlik in 'n sekere mate beheer word. Die registrasiehouer aanvaar egter geen aanspreeklikheid ten opsigte van ongelyste onkruides nie.

## **GEBRUIKSAANWYSINGS    Gebruik slegs soos aangedui**

### **VERENIGBAARHEID**

Die verenigbaarheid van **STRONGARM® 840 WG** in kombinasie met komplementêre produkte mag beïnvloed word deur die formulering van die betrokke produkte asook deur die kwaliteit van die water. Aangesien die formulering van ander produkte kan verander sonder die medewete van Corteva Agriscience™ en die kwaliteit van die water ook van plaas tot plaas kan verskil, moet 'n fisiese verenigbaarheidstoets altyd uitgevoer word voordat gespuit word.

Bepaal altyd vooraf die verenigbaarheid van etiket-aanbevole tenkmengsels van **STRONGARM® 840 WG** met waterdraer deur klein hoeveelhede in verhouding vooraf te meng.

### **VERWYS ALTYD NA DIE PRODUKETIKET.**

#### NOTAS:

- (i) **WAAR EEN VAN DIE BOGENOEMDE PRODUKTE MET STRONGARM® 840 WG IN 'N TENKMENGSEL GEBRUIK WORD, MOET VOLLEDIGE INLIGTING VAN DIE BETROKKE ETIKET VERKRY EN NAGEVOLG WORD.**
- (ii) Die verenigbaarheid van **STRONGARM® 840 WG** in tenkmengsels met aanbevole produkte mag beïnvloed word deur die formulering van hierdie produkte. Aangesien die formulering van ander produkte, sonder waarskuwing aan Corteva Agriscience™, kan verander en aangesien waterkwaliteit van plaas tot plaas kan varieer, moet 'n fisiese mengbaarheidstoets voor toediening uitgevoer word.

MOET NIE meng met onkruidodders, insekdoders, swamdoders, kunsmis of enige ander chemikalieë wat nie op die etiket aanbeveel word nie.

Vir verdere inligting, raadpleeg u plaaslike verteenwoordiger.

### **MENGINSTRUKSIES**

**STRONGARM® 840 WG** waterdispergeerbare korrels word in wateroplosbare sakkies verskaf wat deeglike vermenging benodig. Die produk in elke enkele sakkie het 'n massa van 30 g. Tien enkel sakkies van 30 g elk word in 'n foelie buitepak verpak – 'n gemerkte en herbruikbare foelie beskermende pak met ritssluiting. Die foeliepak bevat dus 'n totaal van 300 g produk.

Moet nie die wateroplosbare sakkies vanuit die buitepak verwyder nie, behalwe vir onmiddellike gebruik. Moenie die wateroplosbare sakkies oormatig hanteer of toelaat dat dit in kontak kom met water voordat gebruik word, andersins mag skeuring veroorsaak word. Hou ongebruikte sakkies in die foelie buitepak met ritssluiting toe.

**STRONGARM® 840 WG** moet vooraf met water gemeng word om 'n bry (*slurry*) te vorm. Nadat wateroplosbare sakkies tot water in 'n emmer gevoeg is, roer onmiddellik of laat oplossing toe. Roer totdat die sakkies volledig opgelos en korrels dispergeer het, voeg dan by tot 'n halfvol spuittenk water. Spoel houer gebruik vir voorafvermenging en voeg spoelwater tot die spuittenk by. Voeg dan die benodigde hoeveelheid komplementêre produk by.

Wanneer MAMBA™ DMA 480 SL (L 8388) in 'n tenkmengsel ingesluit word, moet dit die laaste middel wees wat bygevoeg word nadat alle ander middels, insluitend **STRONGARM® 840 WG**, reeds bygevoeg is.

Vul die tenk verder met water tot die verlangde volume in die spuittenk bereik word.

Die spuitmengsel moet tydens vermenging en toediening voortdurend deeglik in roering gehou word.

Tenkmengsels moet onmiddellik uitgespuit word en nie toegelaat word om in die spuittenk te staan nie.

## TOEDIENING

### Grondtoediening:

#### Met plant en na-plant voor-opkoms (Vars, skoon saadbed)

**STRONGARM® 840 WG** in 'n tenkmengsel met komplementêre produk(te) soos aanbeveel, kan met enige medium- of hoë volume spuittoerusting wat met 'n doeltreffende roer-meganisme toegerus is en wat korrek gekalibreer is, toegedien word. Keuse en rangskikking van waaiertipe spuitpunte moet sodanig wees dat 'n egalige verspreiding en optimale herwinning van die onkruidodder verkry word. Die aanbevole hoeveelheid **STRONGARM® 840 WG** in mengsel met komplementêre produk(te) moet in minstens 200 liter water/ha toegedien word, as 'n breedwerpige toediening.

Indien strooktoediening toegepas word, moet die volume spuitmengsel per hektaar na verhouding verminder word.

Wanneer in klam grond geplant word, moet **STRONGARM® 840 WG** in 'n mengsel met RELAY™ SUPER 900 EC (L 8173) of ALACHLOR 384 EC of ALACHLOR 480 CS of METAGAN® GOLD (L 5748) **binne drie (3) dae na plant** (maar verkieslik tydens plant) toegedien word op 'n relatiewe fyn, egalige, ferm en vars voorbereide saadbed, vry van onkruid, oormatige plantreste en groot kluite. Die onkruidoddermengsel moet nie later as drie (3) dae na die finale bewerking vir saadbedvoorbereiding toegedien word nie.

Afwyking van die voorafgenoemde saadbedtoestande en/of die voorgeskrewe toedieningstyd mag minder effektiewe onkruidbeheer tot gevolg hê. Om goeie resultate te verkry, is dit ook noodsaaklik dat die onkruidodder toediening binne sewe (7) dae gevolg moet word deur 12–15 mm reën of besproeiing voordat die onkruid opkom. Indien reën nie betyds voorkom nie en die onkruid begin opkom en ontwikkel, moet 'n vlak grondbewerking uitgevoer word om hierdie onkruid te vernietig en die onkruidodder met die boonste 10–20 mm grondlagie te vermeng.

Bewerkingstoerusting wat verstel is om vlak te loop en om grondbeweging te minimaliseer, sal die waarskynlikheid van verdunning of verwydering van die onkruidodder vanuit die onkruidbeheer sone, verminder.

Die gebruik van 'n rollandeg in dieselfde rigting as die plantrye mag gewasopkoms bevorder indien grondkorsvorming 'n probleem is, weereens minimaliseer beweging van grond. Om moontlike gewasstremming as gevolg van onvoldoende voeding te vermy en om kragtige, aanvanklike gewassaailinggroei te bevorder, sorg dat voldoende kunsmis tydens plant naby die saad geplaas word.

## **SLEGS Glifosaatverdraagsame sojabone (Verminderde bewerking saadbed)**

Toediening met plant of kort na plant waar onkruid reeds op is, maar **VOORDAT** glifosaatverdraagsame sojabone opgekom het.

In minimum-bewerking of geen-bewerkingstelsels, waar onkruid reeds op is voor die plant van glifosaatverdraagsame sojabone, kan MAMBA™ DMA 480 SL (L8388) bygevoeg word in die tenkmengsel van **STRONGARM® 840 WG** plus die geregistreerde grasonkruiddoder.

Die drieledige tenkmengsel kan toegedien word met of kort na plant **VOORDAT** die sojabone opgekom het.

Let daarop dat 12–15 mm reën of besproeiing binne sewe (7) dae nodig is om die residuele onkruidbeheer van **STRONGARM® 840 WG** plus die grasonkruiddoder op nuwe opkomende onkruid te aktiveer.

Onvoldoende onkruidbeheer van **STRONGARM® 840 WG** plus die grasonkruiddoder kan voor kom as die digtheid van oesreste op die grondoppervlak hoog is en/of as daar hoë onkruiddruk is wat afskerming van die grondoppervlak van grondwerkende onkruiddoders tot gevolg sal hê.

Die na-opkoms effek van glifosaat op kleiner onkruid kan ook verminder word indien hulle deur digte oesreste en/of groter onkruid van die spuitstof afgeskerm word. Raadpleeg eers die verskaffer voor toediening in sulke situasies.

Reën binne ses (6) ure na toediening van bogenoemde tenkmengsel, sal die effektiwiteit van MAMBA™ DMA 480 SL (L8388) benadeel en 'n opvolgbespuiting van MAMBA™ DMA 480 SL (L8388) sal nodig wees om die onkruid te beheer.

## **TOEDIENINGSHOEVEELHEDE**

### **A. GRONDBONE (Voor-opkoms):**

<b>% KLEI</b>	<b>STRONGARM® 840 WG (g/ha)</b>	<b>RELAY™ <u>PLUS</u> SUPER 900 EC (L/ha)</b>
0 - 10	10	0.75
11 - 20	15	1.0
21 - 30	20	1.0-1.5

**B. SOJABONE (Voor-opkoms):**

<b>% KLEI</b>	<b>STRONGARM® 840 WG (g/ha)</b>	<b>PLUS ALACHLOR 384 EC (L/ha)</b>	<b>OF PLUS ALACHLOR 480 CS (L/ha)</b>	<b>OF PLUS METAGAN® GOLD (L/ha)</b>
0 - 10	10	4.0	3.2	0.6 – 0.8
11 - 20	15	4.0 – 4.5	3.2 – 3.6	0.6 – 0.8
21 - 30	20	4.5 – 5.0	3.6 – 4.0	0.8 – 1.0
31 - 40	25	5.0	4.0	1.0 – 1.3
> 40	30	5.0	4.0	1.0 – 1.3

**METAGAN® GOLD (L 5748)** is 'n Syngenta Group Company geregistreerde produk en **METAGAN®** is 'n geregistreerde handelsmerk van 'n Syngenta Group Company.

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