

SOLNOX

Reg. No. / Nr L11833 Act No. 36 of 1947 / Wet Nr 36 van 1947

GROUP

4

HERBICIDE

READ THE LABEL BEFORE USE
KEEP OUT OF REACH OF CHILDREN AND ANIMALS

An emulsifiable concentrate selective herbicide for 'n Emulgeerbare konsentraat selektiewe onkruiddoder the control of woody weeds as listed for forestry, vir die beheer van houtagtige plante soos gelys in grass pastures, conservation, and industrial areas. bosbou, grasweiding, bewarings en nywerheidsgebiede.

Active Ingredient / Aktiewe Bestanddeel

Fluroxypyr (Pyridinecarboxylic acid) contains 200 g a.i. per l Fluroksipir (Piridienkarboksiesuur)



Hazard Statements

Flammable liquid and vapour.
May cause respiratory irritation.
Very toxic to aquatic life with long lasting effects.

Precautionary Statements

IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse affected areas with water or shower.

IF INHALED: Remove person to fresh air and keep comfortable for breathing.

WARNING



REGISTRATION HOLDER / REGISTRASIEHOUER:

Agritech Bioscience (Pty) Ltd / (Edms) Bpk t/a Carabiner
Reg. No. 2008/004392/07
6 Antwerp Street, Apex, Benoni,
1540
South Africa / Suid-Afrika



Batch No./Date manufactured/Expiry date: Refer to details printed on container

UN No. / VN Nr. 1993

Net volume l Netto volume

In case of poisoning, call the following numbers:

Poisons Information Helpline: +27 861 555 777

EMERGENCY NUMBER: +27 82 446 8946

WARNINGS

- GHS Hazard statements

Flammable liquid and vapour.
May cause respiratory irritation.
Very toxic to aquatic life with long lasting effects.

- Allow 30 days between last application and grazing of treated areas.
- Allow 120 days between last application and the planting of a broadleaf plant.
- Do not swallow.
- Poisonous if swallowed.
- **FLAMMABLE** – Do not store or open container near open flames.
- Do not contaminate dams, rivers, lakes, or any other water sources.
- Do not spray over or allow spray drift to contaminate adjacent areas such as crops, rivers, dams and wetlands.
- **RE-ENTRY**: Do not enter treated area within 1 day following treatment unless wearing protective clothing.
- **In case of poisoning immediately call a physician and make this label available to him/her.**

DISCLAIMER

Although this remedy has been tested under a large variety of conditions, the registration holder does not warrant that it will be efficacious under all conditions, because the action and effect thereof may be affected by factors such as abnormal soil, climatic- and storage conditions, quality of dilution water, compatibility with other substances not indicated on the label and the occurrence of resistance of the 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 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

- GHS Precautionary statements

If medical advice is needed, have product container or label at hand.
Keep out of reach of children.
Read carefully and follow all instructions.
Keep away from heat, hot surfaces, sparks, open flames, and other ignition sources. No smoking.
Keep container tightly closed.
Ground and bond container and receiving equipment.
Use explosion-proof electrical/ventilating/lighting/equipment.
Use only non-sparking tools.
Take action to prevent static discharges.
Wear protective gloves/protective clothing/eye protection/face protection/hearing protection.
Avoid breathing dust/fumes/gas/mist/vapours/spray.
Use only outdoors or in a well-ventilated area.
Avoid release to the environment.
IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse affected areas with water or shower.
In case of fire - Use Carbon dioxide, dry chemical, foam, water fog to extinguish.
IF INHALED: Remove person to fresh air and keep comfortable for breathing.
Get medical help if you feel unwell.
Collect spillage.
Store in a well ventilated place. Keep cool.
Keep container tightly closed.

Store locked up.

Dispose of contents/container in accordance with national regulations.

- OPERATOR PROTECTION

- Handle with care.
- Avoid skin and eye contact by wearing protective clothing when mixing the product.
- Do not inhale fumes or spray mist.
- Should eye contact occur, flush the eyes with plenty of clean water for 15 minutes holding eyelids open. Remove contact lenses after five minutes or irrigation. **Seek medical attention.**
- Wash with soap and water after use and accidental skin contact as well as contact with contaminated clothing.
- Wash contaminated clothing after use.
- Do not eat, drink, or smoke while mixing or applying the product or before washing hands and face.

- ENVIRONMENTAL PROTECTION

- Do not contaminate dams, rivers, lakes, or any other water sources.
- Avoid drift of spray onto non-target plants, grazing, rivers, dams, and areas not under treatment.
- Clean applicator after use. Dispose of rinsate where it will not contaminate crops, grazing, rivers, dams, and boreholes.
- Clean the spray applicator with a 1% solution of household ammonia before using with other products. Allow the solution to stand in the spray tank for several hours, but preferably overnight. Rinse at least twice with clean water. This applicator must not be used for applying products other than herbicides. Dispose of the wash water where it will not contaminate food, grazing, rivers, or dams.

- STORAGE AND DISPOSAL

- Store under lock and key in the original container in a cool, dry place out of direct sunlight.
- Store away from food, feed, fertilizer, and seed.
- **KEEP OUT OF SIGHT AND REACH OF CHILDREN**, uninformed persons, untrained personnel, unauthorised personnel and animals.
- Do not allow access to this product by children, uninformed persons, untrained personnel, unauthorised personnel, or animals under any circumstances.
- Prevent contamination of food, feeds, drinking water and eating utensils.
- Containers and packages must be completely emptied before disposal.
- **TRIPLE RINSE THE EMPTY CONTAINER AS FOLLOWS:** Invert the empty container over the spray or mixing tank and drain for at least 30 seconds after the flow has slowed down to dripping. Thereafter, rinse the empty container three times in succession with one quarter of the container volume fresh water and decant the rinsate into the spray or mixing tank. Destroy the triple rinsed container by perforation and flattening and do not use for any other purpose. Store appropriately until it can be disposed of via an approved collector or recycler authorised to recycle or destroy waste in terms of the National Environmental Management: Waste Act, 2008 (Act No. 59 of 2008) and the relevant waste management regulations. Empty containers and product should not be burnt. Do not bury, burn or donate the container to any other parties that may use it as a container for food or beverages.
- **DO NOT REUSE THE CONTAINER FOR ANY OTHER PURPOSE.**

RELEVANT SUBSTANCES

Hazardous Ingredients	Concentration (w/v)
Fluroxypyr-meptyl	≥20%
1,3,5-Trimethylbenzene	≥1 - ≤70%

FIRST AID TREATMENT

If medical advice is needed, have product container or label at hand. Provide medical personnel with the product container, label or safety data sheet (SDS) when seeking medical attention.

General Information: Remove patient from exposed area. Never give fluids or induce vomiting if patient is unconscious or is having convulsions.

Inhalation: Remove patient to fresh air. Loosen clothing around neck. Lie down and keep patient calm, warm and rested. If breathing is shallow or has stopped ensure airway is clear and apply resuscitation. **Seek medical attention.**

Skin contact: Immediately flush body and clothes with large amounts of water. Remove contaminated clothing and footwear. Wash affected areas with soap and water. Do not rub skin. **Seek medical attention.**

Eye contact: Flush eyes with plenty of water for at least 15 minutes holding eyelids open. Remove contact lenses if present, after first 5 minutes, and then continue rinsing. **Seek medical attention.**

Ingestion: Rinse mouth thoroughly. Never give anything by mouth to an unconscious person. If swallowed do NOT induce vomiting. Prevent aspiration if vomiting occurs. Give the patient a glass of water if conscious. For advice, contact the National Poisons Centre. **Seek medical attention.**

Treat symptomatically. For further information on the treatment of poisoning refer to the product Safety Data Sheet provided.

RESISTANCE MANAGEMENT WARNING STATEMENT

For resistance management, **SOLNOX** is a group code 4 herbicide. Any weed population may contain individuals naturally resistant to **SOLNOX** and other group code 4 herbicides. The resistant individuals can eventually dominate the weed population if these herbicides are used repeatedly. These resistant weeds may not be controlled by **SOLNOX** or any other group code 4 herbicide.

To delay herbicide resistance:

- Avoid exclusive repeated use of herbicides from the same herbicide group code. Alternate or tank mix with registered products from different herbicide group codes. Large numbers of healthy surviving weeds can be an indication that resistance is developing. Efforts should be taken to prevent seed set of these survivors.
- Refer to the Herbicide Resistance Action Committee for information regarding any applicable resistance management of group 4 herbicides at <https://hracglobal.com/> for more information.
- Integrate other control methods (such as chemical, cultural, biological) into weed control programmes.
- Avoid distribution of the resistant species to adjacent field by implements during the cultivation period.

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

The presence of resistant weeds is difficult to detect prior to use and therefore neither the Registration Holder nor the Distributor can accept responsibility for any losses as a result of **SOLNOX** not controlling resistant weeds. Do not apply **SOLNOX** alone in situations where weed resistance has been confirmed. Sub-standard application of **SOLNOX** or other pyridyloxy herbicides will lead to inferior weed control and may assist in development of herbicide resistance. It is of the utmost importance to inspect treated areas at regular intervals in order to identify the occurrence of herbicide-resistant weeds timeously.

MODE OF ACTION

Fluroxypyr is a synthetic auxin (acting like indolylacetic acid). It is applied as an ester. After predominantly foliar uptake, the ester is hydrolysed to the parent acid (the herbicidally active form) and translocated rapidly to other parts of the plants. It then acts by inducing characteristic auxin-type responses, e.g., leaf curling.

DIRECTIONS FOR USE - Use only as directed.

NOTICE TO USER: This agricultural remedy is to be used only in accordance with the instructions on the label. It is an offence under Act No. 36 of 1947 to use this agricultural remedy for any purpose in a manner contrary to the directions on the label.

COMPATIBILITY

The compatibility of **SOLNOX** with other products depends on the formulations of the respective products as well as the quality of the spray water to be used. As formulations change from time to time it is recommended that a physical compatibility test be done prior to the tank mixture being made. **SOLNOX** is compatible with the adjuvants H&R Crop Oil and Methos. Consult the relevant labels for full details.

All WARNINGS, PRECAUTIONS, USE RESTRICTIONS and DIRECTIONS FOR USE on the product labels must be fully adhered to.

SOLNOX should not be mixed with products other than those specifically listed in this label.

USE RESTRICTIONS

- Do not apply **SOLNOX** to any situation not mentioned in this instruction leaflet.
- Only apply **SOLNOX** using an accurate and safe application technique.
- Do not allow spray drift to contact susceptible broadleaf crops such as sunflower and potatoes.
- Avoid spraying directly onto the foliage of *Pinus spp.*
- Do not spray directly into funnels of maize plants.
- It takes time for target plants to die completely. Some woody plants may take 4 + months to die completely. Active plant growth will stop almost immediately following correct application.
- Target plants must be actively growing irrespective of the method of application.
- Certain target species may re-grow from the rootstocks (such as *Solanum elaeagnifolium*). In case of regrowth, apply as a spot treatment onto actively growing re-growth, and ensure that all leaves and stems are thoroughly wetted to just before the point of run-off.
- If **SOLNOX** is used in a tank mixture with other recommended products, consideration should be given to the restrictions of those respective products.
- Do not apply **SOLNOX** to seed maize, sweetcorn, or popcorn. Should there be any doubt as to the safety of the treatment to specific varieties, please consult your nearest representative.
- Do not apply this product in combination or tank mixture with any other product or agricultural remedy which is not specifically listed on this label. Agritech Bioscience (Pty) Ltd t/a Carabiner accepts no responsibility for any negative effects experienced if the instructions on this label are not adhered to, unless an Agritech Bioscience representative was consulted beforehand.
- By buying this product, the buyer undertakes that the user is fully aware of and suitably trained on the hazards associated with the preparation and use of this product. By selecting this product voluntarily, the user assumes responsibility for his or her own personal protection whilst storing, mixing, and applying the product in the approved manner according to the instructions for use. The user also confirms to have consulted the SDS of this product and he/she is aware of the potential health hazards which could arise out of use and misuse of this product. Users are encouraged to keep records of all procedures followed and which personal protection equipment was used at all times. All personal protection equipment used must be kept clean and in good working order according to the manufacturer's specifications. Agritech Bioscience (Pty) Ltd t/a Carabiner accepts no responsibility for any adverse effects experienced if the instructions on this label are not adhered to or resulting from improper use of this product or the use of unsuitable personal protection equipment. The user has selected to use this product at his/her own free will and risk.

MIXING INSTRUCTIONS

Half-fill the spray tank with suitable water. If necessary, the pH of the spray water can be corrected to pH 5 – 7 with a suitable buffering agent. Then add the required amount of **SOLNOX** to the water in the tank while agitating. Fill the spray tank to the desired volume with water. Just before the tank is full, add the mineral oil adjuvant according to the recommended rate on the respective product's label. Agitate well to

ensure mixing prior to the application of the mixture. Do not use brackish water. Should tank mixtures with other products be made, follow the respective manufacturer's label recommendations. **Ensure thorough agitation of the mixture in the tank during mixing and application. Tank mixtures must be sprayed out immediately and not allowed to stand in the spray tank overnight.** Spraying equipment must be thoroughly flushed out at the end of the spraying operation. Ensure that spray premixes and/or final spray mixtures are kept out of reach of children, uninformed persons, untrained personnel, unauthorised personnel and animals.

APPLICATION METHODS

Ensure that the equipment is correctly calibrated and is checked regularly during application to ensure even and accurate application. Knapsack sprayers, tractor mounted boom sprayers or similar suitable applicators which are fitted with solid cone nozzles and can distribute the spray mixture evenly over the target may be used. A spray volume of 300-500 l/ha should be used to ensure thorough coverage of target plants. Use nozzles such TG1 or equivalent to ensure good coverage. **Constant agitation throughout the spray operation is essential.** Only clean water should be used. Do not, under any circumstances allow spray or drift to contact any part of desirable vegetation otherwise severe injury or destruction may result.

FOLIAR APPLICATION:

- Apply to actively growing plants with full leaf cover.
- Do not spray whilst weeds are wet, dormant, under stress or covered in a layer of dust or silt or when damaged by frost.
- Rain on sprayed plants may result in reduced efficacy if occurring within 1 hour of application or before spray deposit has dried.
- Apply as full cover spray (to point of run-off) at approximately 2 bar pressure, using TG1, Delavan CE1 or equivalent nozzle. Always thoroughly wet all leaves and stems.

CUT STUMP APPLICATION:

- Apply within 12 hours of cutting.
- **SOLNOX** should not be applied to cut stump surfaces which are wet with dew or rain.
- Apply with solid cone nozzle at no more than 1 bar pressure.
- Apply to the cambium region of the cut surface as well as to the stem sides and exposed root surfaces.

BASAL BARK APPLICATION:

- **SOLNOX** in diesel should not be applied to stems which are wet with dew or rain.
- Apply by means of a paintbrush or low pressure coarse spray to the stem surfaces as well as exposed root surfaces. Apply sufficient quantity of mixture to thoroughly wet all surfaces, bearing in mind that old bark and rough surfaces may require more mixture to ensure adequate penetration. Apply from ground level up all sides of the stem to the height indicated for the particular species as indicated below. In the case of multi-stemmed plants, all stems must be treated individually. Trees with a bigger stem diameter as 100 mm will not be controlled completely.

APPLICATION RATES

FOLIAR APPLICATIONS:

SPECIES	DOSAGE RATE/100 l WATER	REMARKS
Black wattle (<i>Acacia mearnsii</i>)	125 ml + 500 ml mineral oil such as H&R Crop Oil or Methos at 0.5%	Young plants up to 1.0 m high should be treated with a full cover spray in sufficient mixture to ensure thorough wetting of leaves and stems.

Blackwood (<i>Acacia melanoxylon</i>)	125 ml + 500 ml mineral oil such as H&R Crop Oil or Methos at 0.5%	Young plants up to 1.0 m high should be treated with a full cover spray in sufficient mixture to ensure thorough wetting of leaves and stems.
Bugweed (<i>Solanum mauritianum</i>)	125 ml + 500 ml mineral oil such as H&R Crop Oil or Methos at 0.5%	Apply a full cover spray to actively growing seedlings up to 1.0 m high and apply sufficient mixture to ensure thorough wetting of leaves and stems. Established plants should be slashed, and the regrowth treated at approximately 50 cm height with sufficient mixture to ensure thorough wetting.
Saligna gum (<i>Eucalyptus grandis</i>)	500 ml + 500 ml mineral oil such as H&R Crop Oil or Methos at 0.5%	Young plants up to 1.0 m high should be treated with a full cover spray in sufficient mixture to ensure thorough wetting of leaves and stems.
Satans bush (<i>Solanum elaeagnifolium</i>)	250 ml + 500 ml mineral oil such as H&R Crop Oil or Methos at 0.5% OR 500 ml/ha + 1 l mineral oil such as H&R Crop Oil or Methos at 0.5% Follow on spot spray 125 ml + 500 ml mineral oil such as H&R Crop Oil or Methos/100 l water	Apply to young actively growing plants in the spring or early summer seasons. Apply in at least 200 l water / ha and make sure that all leaves and stems are thoroughly wetted to just before the point of run-off. Since <i>Solanum elaeagnifolium</i> has a very deep root system, it may have re-growth from its root stocks. It is recommended that this is treated with a spot spray. Apply this re-spray to actively growing plants and make sure that all leaves and stems are thoroughly wetted to just before the point of run-off.
Sickle bush (<i>Dichrostachys cinerea</i>)	500 ml + 500 ml mineral oil such as H&R Crop Oil or Methos at 0.5%	Young plants up to 1.0 m high should be treated with a full cover spray in sufficient mixture to ensure thorough wetting of leaves and stems.
Sweet thorn (<i>Vachellia karroo</i>)	500 ml + 500 ml mineral oil such as H&R Crop Oil or Methos at 0.5%	Young plants up to 1.0 m high should be treated with a full cover spray in sufficient mixture to ensure thorough wetting of leaves and stems.

CUT STUMP APPLICATIONS:

SPECIES	DOSAGE RATE/10 l WATER	REMARKS
Bugweed (<i>Solanum mauritianum</i>)	200 ml + 50 ml mineral oil such as H&R Crop Oil or Methos at 0.5%	See DIRECTIONS FOR USE above. Apply to low cut stumps (10 – 20 cm in height) preferably with a single cut surface. Apply to a complete cut surface and the root crown of stumps with a diameter of less than 10 cm. Where multiple stumps are present, all cut surfaces must be treated.
Sickle bush (<i>Dichrostachys cinerea</i>)	200 ml + 200 ml mineral oil such as H&R Crop Oil at 2%	
Silver clusterleaf (<i>Terminalia sericea</i>)	200 ml + 200 ml mineral oil such as H&R Crop Oil or Methos at 2%	

		For larger stumps, apply to the cambial region (sapwood) of the cut surface and root crown. In all cases, apply to the point of run-off.
Syringa (<i>Melia azedarach</i>)	200 ml + 50 ml mineral oil such as H&R Crop Oil or Methos at 0.5%	In the event of some regrowth and depending on the species, a follow-up spray as a coppice application may be required.
Sweet thorn (<i>Vachellia karroo</i>)	250 ml + 200 ml mineral oil such as H&R Crop Oil or Methos at 2%	
Umbrella thorn (<i>Vachellia tortilis</i>)	200 ml + 200 ml mineral oil such as H&R Crop Oil or Methos at 2%	

BASAL STEM APPLICATIONS:

SPECIES	DOSAGE RATE/100 l DIESEL	REMARKS
Bugweed (<i>Solanum mauritianum</i>)	1.0 l (1.0 % mixture)	Thoroughly wet stems up to 25 cm above the root collar as well as root crown and all other exposed roots. Only treat plants which are actively growing, and which have a stem diameter of less than 10 cm.

The registration holder is not responsible for weeds not listed.

ACKNOWLEDGEMENT OF TRADEMARKS

H&R Crop oil (L6802)
Methos (L11114)

H&R South Africa (Pty) Ltd
Agritech Bioscience (Pty) Ltd t/a Carabiner