RONSTAR® 2G

MAPP 12965

A granular formulation containing 20 g/kg (2% w/w) oxadiazon for use as a pre-emergence granular herbicide for control of broad leaved weeds and grasses

Herbicide

Container grown nursery stock
GENERAL INFORMATION

Ronstar 2G is a granular formulation containing oxadiazon, a residual and contact herbicide. It is recommended for pre-emergence weed control of a range of annual broad leaved weeds and grasses, in container nursery stock.

Ronstar 2G is available in 20kg packs.

DIRECTIONS FOR USE

Rates: Apply 2kg Ronstar 2G granules evenly over 100 m² of pot surface.

Timing: Apply Ronstar 2G granules as soon after potting as possible and before the crop plant is making soft active growth. A second application may be made 3-4 months later. Plants should receive overhead watering or rainfall shortly after application to ensure good weed control.

Method of application: On small areas a gloved hand is adequate. For larger areas Ronstar 2G granules can be applied using a granule applicator, calibrated according to the instructions. It is very important to apply the granules evenly. Uniform application is essential for satisfactory weed control.

Pattern of distribution at correct application rate

DO NOT mix Ronstar 2G granules into the soil. Cultivations or disturbing the soil will reduce the weed control activity. DO NOT apply Ronstar 2G granules to plants with wet foliage or under conditions in which granules will lodge or collect on leaves. In dry conditions irrigation after application is recommended to ensure that Ronstar 2G granules are activated on the soil surface. The action of Ronstar 2G granules on susceptible weed species occurs as the young shoots emerge from the soil. The chemical is absorbed as they grow upwards through the treated soil. Adequate soil moisture is necessary, to activate this pre-emergence activity.

CAUTIONS

DO NOT treat container-grown plants in poorly ventilated or unventilated glasshouses or polythene tunnels.

Treatment of container grown plants under other protected structures may only be made when the plants are maintained under cool conditions, and well ventilated. Irrigate immediately after application.

DO NOT treat containerised subjects which are rooted in mediums with a high sand or other non-organic content.

DO NOT treat any varieties of Hydrangea, Spirea of Genista pilosa.

CROP TOLERANCE – Recommended Stock Species

Ronstar 2G granules have been applied to a wide range of container grown ornamental shrub species. The following species have been treated successfully. (This list is continually being added to. For information on species not listed consult Certis).

Abelia** Eleagnus Mahonia Rhododendron**
Acer** Erica*** Myrtus Rosa
Azalea* Escallonia Nandina Rubus***
Berberis* Euonymus** Olearia Sarcococca**
Betula** Fagus** Osmanthus Schaefferia**
Buddleia** Forsythia* Pachysandra** Senecio
Buxus** Faxinus** Philadelphia** Skimmia**
Camellia Garrya** Picea** Sorbus**
Ceanothus Hebe* Pernis Syringa**
Cedrus** Hedera** Pinus** Taxus**
Chamaecyparis Hypericum Pittosporum Thuja**
Choisya** ilex Potenilla Tsuga***
Cornus* Juniperus Prunus Viburnum
Cotoneaster* Laurus** Pseudotsuga** Vinca***
Cupressus** Ligustrum** Pyracantha Weigela**
Daphne** Lonicera** Pyrus** Yucca**
Deutzia Magnolia Quercus**

* Some damage occasionally seen

Qualified minor use recommendation

** The evidence of crop safety for the above recommendations for minor use is limited.

Do not treat Hydrangea, Spirea or Genista pilosa. Other species not listed should be treated in small numbers to check crop safety before applying Ronstar 2G granules on a large scale. As a guide, species possessing cupped foliage could collect granules and may, therefore, be intolerant.

In some cases where HEAVY rainfall follows applications treated soil may be splashed onto lower leaves causing transient spotting.

WEEDS CONTROLLED

Weed species controlled include the following:

Fat hen Hairy bitter cress Willowherbs (from seed)
When applied for the control of the above weed species, limited data suggest that the following weeds will also be controlled:

Annual meadow grass Knotgrass Shepherd’s purse
Black bindweed Liverwort (partial control) Small nettle
Black nightshade Mayweeds Smooth sow thistle
Cleavers Oxalis spp. Speedwells
Groundsel Redshank
THE COSHH® CONTROL OF SUBSTANCES HAZARDOUS TO HEALTH REGULATIONS MAY APPLY TO THE USE OF THIS PRODUCT AT WORK.

SAFETY PRECAUTIONS

Operator protection
Engineering control of operator exposure must be used where reasonably practicable in addition to the following items of personal protective equipment:

WEAR SUITABLE PROTECTIVE GLOVES AND FACE PROTECTION (FACESHIELD) when handling the concentrate.

However, engineering controls may replace personal protective equipment if a COSHH assessment shows that they provide an equal or higher standard of protection.

DO NOT BREATHE DUST.

AVOID ALL CONTACT WITH SKIN AND EYES.

WASH ANY CONTAMINATION from skin or eyes immediately.

WASH HANDS before meals and after work.

WHEN USING DO NOT EAT, DRINK OR SMOKE.

Environmental protection
Do not contaminate surface waters or ditches with chemical or used container.

Storage and disposal
KEEP AWAY FROM FOOD, DRINK AND ANIMAL FEEDINGSTUFFS.
KEEP OUT OF REACH OF CHILDREN.
KEEP IN ORIGINAL CONTAINER, tightly closed, in a safe place.
EMPTY SACK COMPLETELY and dispose of safely.

IMPORTANT INFORMATION

FOR USE ONLY AS A HORTICULTURAL HERBICIDE
Crop: Ornamental nursery stock (container grown)
Maximum individual dose: 2 kg of product per 100 m² of container surface
Maximum number of treatments: 2 per annum

READ THE LABEL BEFORE USE. USING THIS PRODUCT IN A MANNER THAT IS INCONSISTENT WITH THE LABEL MAY BE AN OFFENCE. FOLLOW THE CODE OF PRACTICE FOR USING PLANT PROTECTION PRODUCTS.

RONSTAR® 2G
A granular formulation containing 20 g/kg (2% w/w) oxadiazon

VERY TOXIC TO AQUATIC ORGANISMS, MAY CAUSE LONG-TERM ADVERSE EFFECTS IN THE AQUATIC ENVIRONMENT

This material and its container must be disposed of in a safe way.
To avoid risks to man and the environment comply with the instructions for use.

This label is compliant with the CPA Voluntary Initiative Guidance
Section 6 of the Health and Safety at Work Act
Additional Product Safety Information
(This section does not form part of the product label under the Control of Pesticide Regulations (1986).
The product label provides a information on a specific pesticidal use of the product; do not use otherwise, unless you have assessed any potential hazard involved, the safety measures required and that particular use has “off-label” approval or is otherwise permitted under the Control of Pesticide Regulations. The information on this label is based on the best available information including data from test results.

Safety Data Sheet
1. Substance/preparation and company name
Ronstar 2G

Use of the Substance/Preparation
Horticultural herbicide

Company identification
Certis
1b Mills Way, Boscombe Down Business Park, Amesbury, Wiltshire. SP4 7RX
Telephone: 01980 676500  Fax: 01980 626555

Emergency contacts:
For advice on medical emergencies, fires, spillages or chemical hazards ONLY – phone 0870 190 6777.
For further advice for medical professionals - The National Poisons Information Service: Tel: 0870 600 6266 (UK only) or Dublin Tel: 00353 1 379 964/379966.
For further advice for veterinary surgeons: 020 7635 9195

2. Composition/information on ingredients

<table>
<thead>
<tr>
<th>Chemical name</th>
<th>Concentration (%)</th>
<th>CAS</th>
<th>Symbol</th>
<th>R-phrases</th>
</tr>
</thead>
<tbody>
<tr>
<td>Oxadiazon</td>
<td>2.00</td>
<td>19666-30-9</td>
<td>N</td>
<td>R50/53</td>
</tr>
<tr>
<td>Diacetone alcohol</td>
<td>&gt;1.00 - &lt;20.00</td>
<td>123-42-2</td>
<td>Xi</td>
<td>R36</td>
</tr>
</tbody>
</table>

3. Possible hazards
Very toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

4. First aid measures

General advice: Remove contaminated clothing immediately and dispose of safely.
Inhalation: Move the patient to fresh air. Keep patient warm and at rest. If symptoms persist, call a physician.
Skin contact: Wash off immediately with soap and plenty of water. If symptoms persist, call a physician.
Eye contact: In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.
Ingestion: Obtain medical attention. Do not induce vomiting. Rinse mouth. Keep at rest.

Notes to physician
Symptoms: Local: The product causes irritation of eyes, skin and mucous membranes.
Symptoms: Systemic: To date no symptoms are known.
Treatment: Local treatment: Initial treatment: symptomatic.

5. Fire fighting measures

Suitable extinguishing media: Use water spray, alcohol-resistant foam, dry chemical, carbon dioxide (CO2).
Extinguishing media which must not be used for safety reasons: High volume water jet.
Specific hazards during fire fighting: Dangerous gases are evolved in the event of a fire.
Special protective equipment for fire-fighters: In the event of fire and/or explosion do not breathe fumes. In the event of fire, wear self-contained breathing apparatus.
Further information: Remove product from areas of fire, or otherwise cool containers with water in order to avoid pressure being built up due to heat. Whenever possible, contain firefighting water by bunding area with sand or earth.

6. Accidental release measures

Personal precautions: Keep people away from and upwind of spill/leak. Avoid dust formation. Avoid contact with spilled product or contaminated surfaces. When dealing with a spillage, do not eat, drink or smoke.
Environmental precautions: Do not allow to get into surface water, drains and groundwater. If spillage enters drains leading to sewage works inform local water company immediately. If spillage enters rivers or watercourses, inform the Environment Agency (emergency telephone number 0800 807060).
Methods for cleaning up: Use approved industrial vacuum cleaner for removal. Keep in suitable, closed containers for disposal. Clean floors and contaminated objects with plenty of water.
Additional advice: Information regarding safe handling, see section 7. Information regarding personal protective equipment, see section 8. Information regarding waste disposal, see section 13. Check also for any local site procedures.

7. Handling and storage

Handling:
Advice on safe handling: No specific precautions required when handling unopened packs/containers, follow relevant manual handling advice. Avoid dust formation. Use only in area provided with appropriate exhaust ventilation.
Advice on protection against fire and explosion: Dust may form explosive mixtures with air.

Storage:
Requirements for storage areas and containers: Store in a place accessible by authorised persons only. Keep away from direct sunlight. Keep containers tightly closed in a dry and well-ventilated place.
Advice on common storage: Keep away from food, drink and animal feedingstuffs.
Storage stability: Storage temperature should ideally lie between 0 and 30°C; however, storage for two weeks at 54°C has shown no adverse effects regarding product safety or stability.
Suitable materials: Polyethylene film with an outer package. HDPE (high density polyethylene).
8. Exposure controls/personal protection
Refer to COSHH assessment (Control of Substances Hazardous to Health Regulations 1999 as amended). Engineering controls should be used in preference to personal protective equipment wherever practicable. Refer also to COSHH Essentials

Components with workplace control parameters

<table>
<thead>
<tr>
<th>Components</th>
<th>CAS No</th>
<th>Control parameters</th>
<th>Update</th>
</tr>
</thead>
<tbody>
<tr>
<td>Diacetone alcohol</td>
<td>123-42-2</td>
<td>241 mg/m³/50 ppm (TWA)</td>
<td>2005 EH40 WEL</td>
</tr>
<tr>
<td></td>
<td></td>
<td>362 mg/m³/75 ppm (STEL)</td>
<td>2005 EH40 WEL</td>
</tr>
</tbody>
</table>

Personal protective equipment
In normal use and handling conditions please refer to the label and/or leaflet. In all other cases the following recommendations would apply.

Respiratory protection: Wear respirator with a particle filter mask (protection factor 4) conforming to European norm EN149FFP1 or equivalent. Respiratory protection should only be used to control residual risk of short duration activities, when all reasonably practicable steps have been taken to reduce exposure at source e.g. containment and/or local extract ventilation. Always follow respirator manufacturer’s instructions regarding wearing and maintenance.

Hand protection: Wear CE Marked (or equivalent) nitrile rubber gloves (minimum thickness 0.40 mm). Wash when contaminated. Dispose of when contaminated inside, when perforated or when contamination outside cannot be removed. Wash hands always before eating, drinking, smoking or using the toilet.

Eye protection: Wear goggles conforming to EN166 (Field of Use 5 or equivalent).

Skin and body protection: Wear standard coverall and type 5 suit. Wear two layers of clothing wherever possible. Polyester/cotton or cotton overalls should be worn under chemical protection suit and should be professionally laundered frequently.

Hygiene measures: When using, do not eat, drink or smoke. Remove soiled clothing immediately and clean thoroughly before using again. Wash hands immediately after work, if necessary take a shower.

9. Physical and chemical properties
Form: Dry free flowing granules
Colour: Grey yellow to brownish
Odour: Weak, characteristic
pH: 6-9.5 at 1% (20°C)
Water solubility: miscible

10. Stability and reactivity
Conditions to avoid: Extremes of temperature and direct sunlight.
Hazardous reactions: No hazardous reactions when stored and handled according to prescribed instructions. Stable under normal conditions.

11. Toxicological information
Acute oral toxicity: LD₅₀ (rat): >5000 mg/kg
Acute dermal toxicity: LD₅₀ (rat): >2000 mg/kg
Skin irritation: Rabbit: No skin irritation
Eye irritation: Rabbit: No eye irritation
Sensitization: Guinea pig: Non-sensitizing

OECD Test Guideline 406, Magnusson and Kligman test

12. Ecological information
Elimination information
Bioaccumulation:
Bluegill sunfish
Bioconcentration factor (BCF): 1,11
The value mentioned relates to the active ingredient oxadiazon

Ecotoxicity effects:
Toxicity to fish: LC₅₀ (Oncorhynchus mykiss (rainbow trout)): 1.2 mg/l
Exposure time: 96h
The value mentioned relates to the active ingredient oxadiazon

Toxicity to daphnia: EC₅₀ (Water flea (Daphnia magna)): >2.4 mg/l
Exposure time: 48h
The value mentioned relates to the active ingredient oxadiazon

Toxicity to algae: EC₅₀ (Selenastrum capricornutum): 0.0082 mg/l
Exposure time: 120h
The value mentioned relates to the active ingredient oxadiazon

13. Disposal considerations
Product: In accordance with current regulations and, if necessary, after consultation with the site operator and/or with the responsible authority, the product may be taken to waste disposal site or incineration plant. Advice may be obtained from the local waste regulation authority (part of the Environment Agency in the UK).

Contaminated packaging:

Empty remaining contents. Do not use containers for other products. Clean container with water. Rinsed packaging may be acceptable for landfill, otherwise incineration will be required in accordance with local regulations. Not completely emptied packagings should be disposed of as hazardous waste.

Waste key for unused product: 020108 agrochemical waste containing dangerous substances.

14. Transport information
ADR/RID/ADNR
UN-Number: 3077
Labels: 9
Packaging group: III
Hazard no: 90
Description of the goods: ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S. (OXADIAZON MIXTURE)
IMDG
UN-Number: 3077
Labels: 9
Packaging group: III
EmS: F-A, S-F
Marine pollutant: Marine pollutant
Description of the goods: ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S. (OXADIAZON MIXTURE)

IATA
UN-Number: 3077
Labels: 9
Packaging group: III
Description of the goods: ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S. (OXADIAZON MIXTURE)

UK 'Carriage' Regulations
UN-Number: 3077
Labels: 9
Packaging group: III
Hazard no: 90
Emergency action code: 2Z
Description of the goods: ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S. (OXADIAZON MIXTURE)

15. Regulatory information
This product has been classified in accordance with The Chemicals (Hazard Information and Packaging for Supply) Regulations 2002: CHIP3

Hazard symbols: N
Risk phrases: R50/53 Very toxic to aquatic organisms, may cause long-term effects in the aquatic environment
Safety phrases: S37 Wear suitable gloves
S57 Use appropriate containment to avoid environmental contamination

Exceptional labelling: To avoid risks to man and the environment, comply with instructions for use.
Further information: WHO classification: II (Moderately hazardous)

16. Other information
Text of R phrases mentioned in section 2:
R36 Irritating to eyes
R50/53 Very toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment

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