PROFESSIONAL USE ONLY

READ DIRECTIONS FOR USE ON ATTACHED LEAFLET

DURSBAN 4

UK (INCLUDING IRL)

N/A

240x127mm

SV

DURSBAN 4

EU 513

CCL LABEL UK - KINGS LYNN

UN 3017

5 Litres

PRODUCT IDENTIFIER ACCORDING TO ART. 18 OF REG.

5L LEAFLET LABEL

PCP NO. 90541

16-JUN-15

5 Litres

TOXIC, FLAMMABLE, (Chlorpyrifos and Aromatic Hydrocarbon)

547477

UN 3017

UN 3017

AS R50/53 R35/37/39 R20/21

100mm (10cm) @ 100%

100mm (10cm) @ 100%

100mm (10cm) @ 100%
1. IN ALL CASES AND AS EARLY AS POSSIBLE inject atropine sulphate 2 mg or pro rata for children and repeat (if necessary) until

PREVENT ALL EXERTION.

REMOVE CONTAMINATED CLOTHING. WASH EXPOSED SKIN AND HAIR.

STOP WORK

IF ANY OF THE ABOVE SYMPTOMS OCCUR, PARTICULARLY IF THERE IS KNOWN CONTAMINATION:

SYMPTOMS OF POISONING

THESE MAY INCLUDE EXCESSIVE SWEATING, HEADACHE, WEAKNESS, FAINING AND GIDDINESS, NAUSEA, STOMACH PAINS, VOMITING, SMALL PUPILS,
### SPECIFIC TREATMENT:

**GUIDE TO DOCTOR**

Call doctor AT ONCE and show him this label.

Remove contaminated clothing. Wash exposed skin and hair.

### FIRST AID

#### SYMPTOMS OF POISONING

By estimating cholinesterase activity (5ml blood, unhaemolysed, collected in an anticoagulant).

1. **Respiratory** - intubation with endotracheal tube, or tracheotomy may be necessary in conjunction with artificial respiration.

2. **IF AVAILABLE** administer pralidoxime 1 gram by intra-muscular injection. Repeat after 3-4 hours.

### FOR USE ONLY AS AN AGRICULTURAL/HORTICULTURAL/FORESTRY INSECTICIDE

#### IMPORTANT INFORMATION

**Crop**

- Maximum Individual Dose
  - (litres product/ha unless otherwise stated)
  - 2.0 One 21 days before harvest
  - 1.0 One End of July in year of harvest
  - 1.5 One

**Treatments (per crop unless otherwise stated)**

- Two
- One
- Before flowering (Zadoks 59)

**Latest Time of Application**

- AND
- 1.0
- 2.0
- 2.0 Two
- Two per year
- One per year
- One per year
- AND

**AND**

- Maximum Number of Treatments (per crop unless otherwise stated)
  - AND
  - (b) Modules containing cabbage, Brussels sprout, cauliflower and calabrese: 50 ml of product per 5000 blocks
  - (c) Peat blocks containing cabbage, Brussels sprout, cauliflower and calabrese: 100 ml of product per 25 litres of water
  - (a) Listed brassicae (field): 100 ml of product per 100 litres of water
  - (d) Modules containing cabbage, Brussels sprout, cauliflower and calabrese: 50 ml of product per 5000 blocks
  - (see Other Specific Restrictions)

**FURTHER ADVICE FROM:**

Tel: +44 (0) 1462 457 272
Fax: +44 (0) 1462 426 605

Dow AgroSciences Limited, Latchmore Court, Brand Street, Hitchin, Hertfordshire, SG5 1NH

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Other specific restrictions:

- Spider mites: necessary use different active ingredients.
- Pear suckers resistant to one or more groups of insecticides are widespread. Where strains resistant to products occur, DURSBAN 4 is unlikely to give satisfactory control. Repeat treatments of the same product are unlikely to improve efficacy.
- Aphis: when attack is established and deadhearts are visible, will be less effective; under these conditions an approved systemic insecticide such as an approved formulation of dimethoate should be used. Activity of DURSBAN 4 may be reduced when soil temperatures remain low.
- Wheat blossom midge: applications to winter wheat are recommended.
- Leatherjackets: matted swards containing significant amounts of susceptible species (eg ryegrass) should be avoided. In these cases, post-drilling applications to winter wheat. DURSBAN 4 is compatible with approved formulations of paraquat at recommended rates and timings. Applications to dense, plant (see Other Specific Restrictions)
- Frit fly:
- Cut logs 700 ml of spray solution
- 1.5 Three 14 days before harvest
- 1.0
- 1.0 Three 14 days before harvest
- 1.0
- 1.0 Three 14 days before harvest
- 1.0
- 1.0
- 1.0
- 1.0
- 1.0
- 1.0

**Special Restrictions:**

- 5 & 6)
- 5 & 6)
- 5 & 6)

**Code of Practice for Using Plant Protection Products.**
In common with many soil-applied pesticides the activity of DURSBAN 4 may be reduced in organic soils.

**NOTE**

Seed potato and bulb onions – 21 days before harvest.

Spray applications to broccoli/calabrese, cabbage, cauliflower and Chinese/oriental cabbages should be made no later than 21 days to BBCH 33).

**TIME OF APPLICATION**

Leatherjackets:

Spray at first crop emergence or when crop has not more than 2 leaves.

DURSBAN 4 should not be applied during periods of frost as leatherjacket activity is reduced under these conditions and treatment on golf courses.

First seen. Early treatment is recommended in order to prevent yield losses from over-winter feeding. Later applications may be made DURSBAN 4 may be applied at any time from the beginning of November where high larval populations are detected or damage is otherwise leaching of the DURSBAN 4 will occur which may reduce Cabbage root fly control and lead to contamination of underlying soil. It is important that the total volume of water used in these three stages does not exceed the water holding capacity of the modules, otherwise excessive leaching will occur which may reduce efficacy.

**APPLICATION METHOD, DOSE AND VOLUMES – PEAT BLOCKS**

One drench application per crop.

4 days after transplanting or at seedling stage.

The water volumes below are given as a guide for modules of 11 to 13 ml capacity (the minimum size and hence the minimum volume glasshouse soil (see Notes below).

Peat block or module will lead to reduced control.

Overdosing can result in transient yellowing of leaves, especially where high rates of a composting or wetting agent have been used. Further treatments to control cabbage root fly larvae may be required in areas of high activity.

The water volumes below should be adjusted for modules of other sizes and where different growing media are used. The minimum water volume of 200 litres/ha should be used.

**TIME OF APPLICATION**

**RATE OF USE AND PESTS CONTROLLED**

- Frit fly, leatherjackets 1.5 litres
- Caterpillars (small), leatherjackets, whitefly (adults) 1.5 litres
- Aphids 1.0 litre

**PEST RATE PER 100 LITRES**

- Caterpillars: 100 g
- Leatherjackets: 70 ml
- Whitefly: 100 ml

**FIELD DRENCH TREATMENT**

Broccoli, cabbage, calabrese, cauliflower, Chinese/oriental cabbage, seed potatoes:

MAXIMUM NUMBER OF APPLICATIONS

One per crop.

LATEST TIME OF APPLICATION

End of July in year of harvest.

**WATER VOLUME**

The leaves should be moistened with a light spray of water immediately before treatment.

**APPLICATION METHOD, DOSE AND VOLUMES – PEAT BLOCK/MODULE DRENCH TREATMENT**

One prior to planting out.

**MAXIMUM NUMBER OF APPLICATIONS**

One drench application per crop.

**TIME OF APPLICATION**

Immediately after treatment, the spray should be washed off the leaves of the treated crop with water. The volume of water should be determined by estimating the uptake of water by one block and then multiplying by 5,000 to calculate the volume for 5,000 blocks.

The leaves should be moistened with a light spray of water immediately before treatment.

**PEST RATE PER 500 ML**

- Caterpillars: 5 g
- Leatherjackets: 35 ml
- Whitefly: 50 ml

**TIME OF APPLICATION**

Peat block or module will lead to reduced control.

**APPLICATION METHOD, DOSE AND VOLUMES – EG INTERCEPTOR TRAYS**

One prior to planting out.

**MAXIMUM NUMBER OF APPLICATIONS**

One drench application per crop.

**TIME OF APPLICATION**

4 days after transplanting or at seedling stage.

**DRENCH TREATMENT**

Peat block or module will lead to reduced control.

**APPLICATION METHOD, DOSE AND VOLUMES – PEAT BLOCKS**

One drench application per crop.

4 days after transplanting or at seedling stage.

**MAXIMUM NUMBER OF APPLICATIONS**

One drench application per crop.

**TIME OF APPLICATION**

Immediately after treatment, the spray should be washed off the leaves of the treated crop with water. The volume of water should be determined by estimating the uptake of water by one block and then multiplying by 5,000 to calculate the volume for 5,000 blocks.

The leaves should be moistened with a light spray of water immediately before treatment.

**PEST RATE PER 500 ML**

- Caterpillars: 5 g
- Leatherjackets: 35 ml
- Whitefly: 50 ml

**APPLICATION METHOD, DOSE AND VOLUMES – PEAT BLOCK/MODULE DRENCH TREATMENT**

One prior to planting out.

**MAXIMUM NUMBER OF APPLICATIONS**

One drench application per crop.

**TIME OF APPLICATION**

4 days after transplanting or at seedling stage.

**DRENCH TREATMENT**

Peat block or module will lead to reduced control.

**APPLICATION METHOD, DOSE AND VOLUMES – PEAT BLOCKS**

One drench application per crop.

4 days after transplanting or at seedling stage.

**MAXIMUM NUMBER OF APPLICATIONS**

One drench application per crop.

**TIME OF APPLICATION**

Immediately after treatment, the spray should be washed off the leaves of the treated crop with water. The volume of water should be determined by estimating the uptake of water by one block and then multiplying by 5,000 to calculate the volume for 5,000 blocks.

The leaves should be moistened with a light spray of water immediately before treatment.

**PEST RATE PER 500 ML**

- Caterpillars: 5 g
- Leatherjackets: 35 ml
- Whitefly: 50 ml

**APPLICATION METHOD, DOSE AND VOLUMES – PEAT BLOCK/MODULE DRENCH TREATMENT**

One prior to planting out.

**MAXIMUM NUMBER OF APPLICATIONS**

One drench application per crop.

**TIME OF APPLICATION**

Immediately after treatment, the spray should be washed off the leaves of the treated crop with water. The volume of water should be determined by estimating the uptake of water by one block and then multiplying by 5,000 to calculate the volume for 5,000 blocks.

The leaves should be moistened with a light spray of water immediately before treatment.

**PEST RATE PER 500 ML**

- Caterpillars: 5 g
- Leatherjackets: 35 ml
- Whitefly: 50 ml

**APPLICATION METHOD, DOSE AND VOLUMES – PEAT BLOCKS**

One drench application per crop.

4 days after transplanting or at seedling stage.

**MAXIMUM NUMBER OF APPLICATIONS**

One drench application per crop.

**TIME OF APPLICATION**

Immediately after treatment, the spray should be washed off the leaves of the treated crop with water. The volume of water should be determined by estimating the uptake of water by one block and then multiplying by 5,000 to calculate the volume for 5,000 blocks.

The leaves should be moistened with a light spray of water immediately before treatment.

**PEST RATE PER 500 ML**

- Caterpillars: 5 g
- Leatherjackets: 35 ml
- Whitefly: 50 ml

**APPLICATION METHOD, DOSE AND VOLUMES – PEAT BLOCK/MODULE DRENCH TREATMENT**

One prior to planting out.

**MAXIMUM NUMBER OF APPLICATIONS**

One drench application per crop.

**TIME OF APPLICATION**

Immediately after treatment, the spray should be washed off the leaves of the treated crop with water. The volume of water should be determined by estimating the uptake of water by one block and then multiplying by 5,000 to calculate the volume for 5,000 blocks.

The leaves should be moistened with a light spray of water immediately before treatment.

**PEST RATE PER 500 ML**

- Caterpillars: 5 g
- Leatherjackets: 35 ml
- Whitefly: 50 ml

**APPLICATION METHOD, DOSE AND VOLUMES – PEAT BLOCKS**

One drench application per crop.

4 days after transplanting or at seedling stage.

**MAXIMUM NUMBER OF APPLICATIONS**

One drench application per crop.

**TIME OF APPLICATION**

Immediately after treatment, the spray should be washed off the leaves of the treated crop with water. The volume of water should be determined by estimating the uptake of water by one block and then multiplying by 5,000 to calculate the volume for 5,000 blocks.

The leaves should be moistened with a light spray of water immediately before treatment.

**PEST RATE PER 500 ML**

- Caterpillars: 5 g
- Leatherjackets: 35 ml
- Whitefly: 50 ml

**APPLICATION METHOD, DOSE AND VOLUMES – PEAT BLOCK/MODULE DRENCH TREATMENT**

One prior to planting out.

**MAXIMUM NUMBER OF APPLICATIONS**

One drench application per crop.

**TIME OF APPLICATION**

Immediately after treatment, the spray should be washed off the leaves of the treated crop with water. The volume of water should be determined by estimating the uptake of water by one block and then multiplying by 5,000 to calculate the volume for 5,000 blocks.

The leaves should be moistened with a light spray of water immediately before treatment.

**PEST RATE PER 500 ML**

- Caterpillars: 5 g
- Leatherjackets: 35 ml
- Whitefly: 50 ml

**APPLICATION METHOD, DOSE AND VOLUMES – PEAT BLOCKS**

One drench application per crop.

4 days after transplanting or at seedling stage.

**MAXIMUM NUMBER OF APPLICATIONS**

One drench application per crop.
Two applications of DURSBAN 4* insecticide at 1.5 litres/ha per crop may be applied before flag leaf sheath extending stage on golf courses.

Leatherjackets: Apply in 200 to 1000 litres of water per hectare. The water volume should be determined by estimating the uptake of water by one block and then multiplying by 5,000 to calculate the volume for 30 metres of row. DURSBAN 4 should then be applied at 100 ml per 5,000 blocks (43 X 43 X 43 mm) in as dilute a solution as possible. The drench volume should be sufficient to clear the leaves of spray deposit but not so much that DURSBAN 4 is leached from the block. Any such leaching will reduce pest control and may also lead to soil contamination (see ‘Notes’ below).

Cutworms: One per crop.

Chinese/oriental cabbage, bulb onions, seed potato and bulb onions – 21 days before harvest.

Where DURSBAN 4 is used for aphid and caterpillar control it will give some control of whitefly.
Woolly aphid: This pest will also be controlled by the codling and tortrix spray applications.

Aphids: A maximum number of one pre-blossom application and three post-blossom applications per year of DURSBAN 4 may be made to apples.

Capsids, apple sucker:

Apple blossom weevil: Where DURSBAN 4 is used at petal fall for capsid, late winter moth or sawfly control, or later where it is used for these pests, a maximum number of one foliar application per crop of DURSBAN 4 at 1.0 litre/ha may be made in strawberries for use against aphids and tortrix.

Red spider mite: To be used post-blossom on plums intended for heat preservation processing only.

Aphids, capsids, caterpillars, codling moth, pear sucker, red spider mite, strawberry blossom weevil:

Protected crops:

Runner beds/maiden beds:

Strawberry blossom weevil:

Vine weevil: Do not apply DURSBAN 4 for the control of vine weevil larvae to strawberries grown under plastic tunnels or in cloches.

Raspberries: DURSBAN 4 can only be applied as a drench treatment to strawberries at the end of the cropping season but before the end of the growing season. A maximum number of one drench application per year of DURSBAN 4 may be made to strawberries.

Apply in 250 to 2000 litres of water per hectare. Apply in 1000 litres of water per hectare.

NOTE

MAXIMUM NUMBER OF APPLICATIONS

RATES OF USE AND PESTS CONTROLLED

SPRAY APPLICATION

PRE-BLOSSOM

TIME OF APPLICATION

RATE OF USE AND PESTS CONTROLLED

PEARS

PRE-BLOSSOM

NOTE

LATEST TIME OF APPLICATION

WATER VOLUME

POST-BLOSSOM (Pears for Perry only)

NOTE

MAXIMUM NUMBER OF APPLICATIONS

RATES OF USE AND PESTS CONTROLLED

SPRAY APPLICATION

PRE-BLOSSOM

NOTE

LATEST TIME OF APPLICATION

WATER VOLUME

POST-BLOSSOM (Plums subject to heat preservation)

NOTE

MAXIMUM NUMBER OF APPLICATIONS

RATES OF USE AND PESTS CONTROLLED

SPRAY APPLICATION

PRE-BLOSSOM

NOTE

LATEST TIME OF APPLICATION

WATER VOLUME

POST-BLOSSOM (Plums subject to heat preservation)
### Pest Rate per hectare

<table>
<thead>
<tr>
<th>Pest</th>
<th>Rate of Use and Pests Controlled</th>
</tr>
</thead>
<tbody>
<tr>
<td>Aphids, raspberry beetle</td>
<td>1.0 litre</td>
</tr>
<tr>
<td>Raspberry cane midge</td>
<td>1.0 litre</td>
</tr>
<tr>
<td>Strawberry blossom weevil</td>
<td>1.5 litres</td>
</tr>
<tr>
<td>Red spider mite</td>
<td>1.5 litres</td>
</tr>
<tr>
<td>Strawberry weevil</td>
<td>1.5 litres</td>
</tr>
<tr>
<td>Fruit mites</td>
<td>1.5 litres</td>
</tr>
</tbody>
</table>

### Application

- **Pre-blossom**
  - Apply in 250 to 2000 litres of water per hectare.
- **Post-blossom**
  - Sprays must be applied after the first sign of damage up until fruit crops start flowering.
- **Fruiting beds**
  - Spray when pests are seen.
  - This pest when it occurs on pears may also be controlled by post-blossom applications.
- **Protected crops**
  - Spray protected crops in early March to early April.
  - This pest when it occurs on pears may also be controlled by post-blossom applications.
- **November**
  - Drench strawberry crowns and surrounding collar mixtures of soil after cropping and preferably after mowing.

### Maximum Number of Applications

- **Apples**
  - Maximum number of one pre-blossom application and three post-blossom applications per year of DURSBAN 4 may be made to apples.
  - An interval of 4 days should elapse between applications of DURSBAN 4 and any herbicide. DO NOT TREAT CROPS UNDER STRESS.

### Pest Control

- **Red spider mite**
  - If no pre-blossom control measures have been taken it is advisable to use at least 1000 litres water per application.
- **Winter moths, codling moth, Common green capsid, aphids (rosy leaf-curling etc), sawfly**
  - Where there is a known history of rosy leaf-curling aphid, spray pre-blossom and again at petal fall.
  - A late green cluster to pink bud application will control all the above pests except common green capsid, rosy leaf-curling aphid and capsids, tortrix.

### Water Volume

- **Apples**
  - Apply in 250 to 2000 litres of water per hectare.

### Time of Application

- **Pre-blossom**
  - Apply in 250 to 2000 litres of water per hectare.
- **Post-blossom**
  - Apply in 250 to 2000 litres of water per hectare.

### Pest Control Instructions

- **Pear sucker**
  - To be used post-blossom on plums intended for heat preservation processing only.
- **Winter moths, tortrix**
  - Apply just before flowering and before the aphids build up (usually in mid to late April for outdoor crops). For those pests resistant to organophosphorus, application of DURSBAN 4 at the time for aphids will also control non-organophosphorus resistant red spider mite.
- **Bud burst to white bud**
  - Spray at cot split (7 to 10 days after petal fall).

### Additional Information

- **Runner beds/maiden beds**
  - Strawberry blossom weevil or red spider mite.
- **Protected crops**
  - Application of DURSBAN 4 at the time for aphids will also control non-organophosphorus resistant red spider mite.
- **Protected crops**
  - Fruit mites will be controlled when spraying between bud burst and white bud.
- **November**
  - Drench strawberry crowns and surrounding collar mixtures of soil after cropping and preferably after mowing.
NOTE
A maximum number of three applications per crop of DURSBAN 4 may be made to currants.

MAXIMUM NUMBER OF APPLICATIONS
LATEST TIME OF APPLICATION

Red spider mite:

Aphids:

TIME OF APPLICATION
WATER VOLUME

The following crops can be treated: Blackcurrants, redcurrants, whitecurrants

Fruit crops must not be treated during flowering.

A maximum number of one application per year of DURSBAN 4 may be made to gooseberries.

14 days before harvest.

LATEST TIME OF APPLICATION

Caterpillars:

Capsids:

For the latest advice on tank mixes with DURSBAN 4 please contact Dow AgroSciences.

COMPATIBILITY

For stack spraying apply 700 millilitres of solution per square metre of superficial stack area (top and sides and ends).

NOTE
Do not spray in cold, windy conditions.

NOTE
Red spider mite 1.5 litres
Aphids, capsids, caterpillars 1.0 litre

RATE OF USE AND PESTS CONTROLLED

As a directed spray on trees in forests

Spray one week later in both areas after a cold spring. Delay first application until small longitudinal splits are found on the young canes, ie below bottom wire.

Raspberry cane midge:

Red spider mite:

Raspberry beetle:

Apply in a minimum of 1000 litres of water per hectare for control of raspberry beetle; 500 litres of water per hectare for other pests.

Spray pre-blossom as required.

Spray at fruit set and repeat if necessary. Repeat after picking to avoid spider mite hibernating for next season.

Attacks at first pink fruit will be controlled by sprays applied for raspberry beetle control or spray later as required.

Spray at first pink fruit stage.

24-Hour Emergency Contact:
Tel: (0044) 191 4917777

Do not apply at night. Avoid direct spray on blossoms, flowers, fruit or foliage. Do not spray in strong wind or rain. Do not spray if rain is imminent. Do not spray if wet conditions are likely to occur within 24 hours after application. Do not spray if the temperature is above 30°C. Do not spray near drinking water supplies. Do not spray in windy conditions.

The following pests can be treated: Red spider mite, aphids, capsids, leafhoppers, scale insects, caterpillars, Ambrosia beetle, larch shoot beetle, pine shoot beetle

Pest Rate per hectare

Ambrosia beetle, larch shoot beetle, pine shoot beetle 1.0 litres

Spray as soon as the pests are seen, usually soon after fruit set. It is important to force the wash into the centre of large bushes.

Spray as soon as mites are seen on the foliage, usually late April to early May.

RDSQuestion@dow.com

5 mm

For the full text of the R-phrases mentioned in this Section, see Section 16.

Dangerous for the environment - R50/53
Irritant - R36/37/38
Harmful - R65
R10

For the full text of the H-Statements mentioned in this Section, see Section 16.

Acute aquatic toxicity - Category 1 - H400
Aspiration toxicity - Category 1 - H304
Eye irritation - Category 2 - H319
Skin irritation - Category 2 - H315
Acute toxicity - Category 4 - Oral - H302

Classification according to EU Directives 67/540/EEC

Acute toxicity - Category 4 - Oral - H302

Classification according to Regulation (EU) 1272/200

Aspiration toxicity - Category 1 - H304
Eye irritation - Category 2 - H319
Skin irritation - Category 2 - H315

Supplemental Hazard Statements

H335 May cause respiratory irritation.
H304 May be fatal if swallowed and enters airways.
H315 Causes skin irritation.
H336 May cause drowsiness or dizziness.

Hazardous for the environment - R50/53
Dangerous for the environment - R50/53
Irritant - R36/37/38
Harmful - R65
R10

P501 Dispose of contents/container to a licensed waste disposal contractor or collection site except for empty clean packaging which can be disposed of as household waste.
P331 Do NOT induce vomiting.
P338
P305 + P351 +P302 + P352 IF ON SKIN: Wash with plenty of soap and water.

CLP/GHS:

Labelling according to Regulation (EC) No 1272/200

Acute aquatic toxicity - Category 1 - H400
Aspiration toxicity - Category 1 - H304
Eye irritation - Category 2 - H319
Skin irritation - Category 2 - H315
Acute toxicity - Category 4 - Oral - H302

For stack spraying apply 700 millilitres of solution per square metre of superficial stack area (top and sides and ends).

Continue rinsing.

IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do.

IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing.

IF SWALLOWED: Rinse out mouth. Do NOT induce vomiting.

IF SKIN INFECTED: Wash exposed area with soap and water.
Fruit crops must not be treated during flowering.

NOTE

A maximum number of three applications per crop of DURSBAN 4 may be made to currants. 14 days before harvest.

Aphids:

TIME OF APPLICATION

WATER VOLUME

The following crops can be treated: Blackcurrants, redcurrants, whitecurrants

CURRANTS

Ambrosia beetle, larch shoot beetle, pine shoot beetle 1.0 litres

All goods supplied by us are of high grade and we believe them to be suitable but, as we cannot exercise control over their storage, handling, application or use. These conditions cannot be varied by our staff or agents whether or not they supervise or assist in the use of such goods.

Do not spray in cold, windy conditions.

NOTE

For stack spraying apply 700 millilitres of solution per square metre of superficial stack area (top and sides and ends).

Apply 500 millilitres of solution per square metre bark area ie log length X mid-circumference for single logs.

Harmful - R20/22

R10

Classification according to EU Directives 67/54

Acute aquatic toxicity - Category 1 - H400

Specific target organ toxicity - single exposure - Category 3 - Respiratory tract irritant. - H335

Aspiration toxicity - Category 1 - H304

Skin irritation - Category 2 - H315

Acute toxicity - Category 4 - Inhalation - H332

Flammable liquids - Category 3 - H226

Signal word: DANGER

EU 513

CCL LABEL UK- KINGS LYNN

For the full text of the R-phrases mentioned in this Section, see Section 16.

For the full text of the H-Statements mentioned in this Section, see Section 16.

For stack spraying apply 700 millilitres of solution per square metre of superficial stack area (top and sides and ends).

Apply 500 millilitres of solution per square metre bark area ie log length X mid-circumference for single logs.

NOTE

A maximum number of one application per year of DURSBAN 4 may be made to gooseberries.

MAXIMUM NUMBER OF APPLICATIONS

LATEST TIME OF APPLICATION

NOTE

A maximum number of three applications per crop of DURSBAN 4 may be made to currants. 14 days before harvest.

Aphids:

TIME OF APPLICATION

WATER VOLUME

The following crops can be treated: Blackcurrants, redcurrants, whitecurrants

CURRANTS

Ambrosia beetle, larch shoot beetle, pine shoot beetle 1.0 litres

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For stack spraying apply 700 millilitres of solution per square metre of superficial stack area (top and sides and ends).

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Harmful - R20/22

R10

Classification according to EU Directives 67/54

Acute aquatic toxicity - Category 1 - H400

Specific target organ toxicity - single exposure - Category 3 - Respiratory tract irritant. - H335

Aspiration toxicity - Category 1 - H304

Skin irritation - Category 2 - H315

Acute toxicity - Category 4 - Inhalation - H332

Flammable liquids - Category 3 - H226

Signal word: DANGER

EU 513

CCL LABEL UK- KINGS LYNN

For the full text of the R-phrases mentioned in this Section, see Section 16.

For the full text of the H-Statements mentioned in this Section, see Section 16.
This product is a mixture.

SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS

Index-No.  
CASRN / EC-No. / Index-No. Concentration Component Classification:

CASRN
2921-88-2

EC-No.

–

Number

Concentration

Component

Classification:

44.5% chlorpyrifos (ISO) T - R25
Aquatic Chronic - 2 - H411
Acute Tox. - 4 - H302
Aquatic Chronic - 1 - H410
Aquatic Acute - 1 - H400

4.2 Most important symptoms and effects, both acute and delayed:

Ingestion:

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 centre or doctor for treatment advice. Suitable emergency eye wash

Eye contact:

Not available

SELECTED EXPOSURE SCENARIOS

6.1 Personal precautions, protective equipment and emergency procedures:

Container may rupture from gas generation in a fire situation. Violent steam generation or (fumes) can accumulate. Consider feasibility of a controlled burn to minimize environment damage. Foam fire extinguishing system is preferred because uncontrolled water can spread possible contamination. Use water spray to cool fire exposed containers and fire operations. If contact is likely, change to full chemical resistant fire fighting clothing with self-contained breathing apparatus. If this is possible without hazard. Burning liquids may be moved by flushing with water to protect personnel and minimize property damage. Contain fire water run-off if possible. Fire water run-off, if not contained, may cause environmental

UNUSUAL FIRE AND EXPLOSION HAZARDS:

Component Regulation Type of listing Value/Notation

IE OEL OELV - 8 hrs (TWA) inhalable fraction 0.1 mg/m3

ACGIH TWA  OEL Notation

Component Regulation Type of listing Value/Notation

IE OEL OELV - 8 hrs (TWA) inhalable fraction 0.1 mg/m3

ACGIH TWA  OEL Notation

6.2 Suitable PPE for specific exposure scenarios:

Evacuate area. Refer to section 7, Handling, for space entry procedures must be followed before entering the area. Vapour explosion hazard. Keep out of sewers. Eliminate all sources additional precautionary measures. Only trained and properly protected personnel must be involved in clean-up operations. Keep

6.3 Steps to be taken in case vehicle is involved in accident:

Considerations, for additional information.

UNIQUE PROPERTIES OF THE MATERIAL

9.2 Other information:

Additional information:

RECOMMENDATIONS IN THIS SECTION ARE FOR MANUFACTURING, COMMERCIAL BLENDING AND PACKAGING WORKERS.
This product is a mixture.

SECTION 3. COMPOSITION / INFORMATION ON INGREDIENTS

<table>
<thead>
<tr>
<th>CASRN / EC-No. / Index-No.</th>
<th>Concentration Component Classification:</th>
</tr>
</thead>
<tbody>
<tr>
<td>01-2119455851-35 &gt; 40.0 - &lt; 50.0 % Hydrocarbons, C9, dodecyl-, calcium salt</td>
<td></td>
</tr>
<tr>
<td>227mm</td>
<td></td>
</tr>
<tr>
<td>240mm</td>
<td></td>
</tr>
</tbody>
</table>

For the full text of the R-phrases mentioned in this Section, see Section 16.

General advice:

- Symptoms and effects are described in Section 11: Toxicology Information.
- For the full text of the R-phrases mentioned in this Section, see Section 16.
- Ingestion: Immediately call a poison control centre or doctor. Do not induce vomiting unless told to do so by a poison control centre or doctor. Do not give any liquid to the person. Do not give anything by mouth to an unconscious person.
- Inhalation: Move person to fresh air. If person is not breathing, call an emergency responder or ambulance, then give artificial respiration; if by mouth to mouth use rescuer protection (pocket mask etc). Call a poison control centre or doctor for treatment advice.
- Eye contact: Not available
- Skin contact: Remove contaminated clothing completely. Wash skin with soap and water. Consult a physician if irritation or rash occurs.

Unusual Fire and Explosion Hazards:

- Mixtures of this product are readily ignited even by static discharge. Vapours are heavier than air and may travel a long distance and accumulate in low lying areas. Ignition and/or flash back may occur. Dense smoke is produced when product burns.

Hazardous combustion products:


5.1 Extinguishing media


5.2 Special hazards arising from the substance or mixture

- Keep away from heat, sparks, open flames and hot surfaces; avoid dust or spilling. Avoid contact with water. If fire occurs, use special protective equipment. Do not enter confined spaces unless adequately ventilated.

5.3 Advice for firefighters

- Fire may produce toxic fumes. Anhydrous water, fog, fire extinguishing agents recommended. Do not use direct water stream. May spread fire. Eliminate ignition sources. Move fire to container.

6.1 Personal precautions, protective equipment and emergency procedures:

- Use appropriate protective equipment as specified by local regulations.
- Keep out of reach of children. Keep away from heat, sparks and flame. No smoking, open flames or other ignition sources.

6.2 Environmental precautions:

- Unless otherwise stated, the product is not harmful to the environment. While handling this product, take into consideration the inherent hazards of the product and the environment in which the product is to be used.

6.3 Methods and materials for containment and cleaning up:

- Collect spillage with suitable materials. Neutralize with an appropriate agent. Use personal protective equipment.

7.1 Control parameters

- Local exhaust ventilation for handling the product. Maintain a ventilation flow rate of 10 m³ per minute per bucket of material. Keep a good supply of fresh air. Where possible, use a local exhaust system.

7.2 Other information

- In case of high levels of exposure, medical assistance should be sought. Maintain adequate ventilation and oxygenation of the patient.

8.1 Transport and packaging information

- Transport according to Standard 17 ADR / RID / IMDG / ICAO / IATA as appropriate. Examine containers for damage, corrosion and leakage prior to use. Use water to flush away spillage if necessary.

8.2 Other regulatory information

- This product is included in the UK flavouring category. EU 513.

9.1 Legislation for specific uses

- N - R51/53
- Xn - R65
- R10
- Xi - R38-R41
- R67
- R66
- 67/54/EEC

9.2 Other legal requirements

- EU 513

10.1 Technical data

- Molecular formula: Inorganic
- Molecular weight: 150
- Purity: 95%
- Melting point: 0°C
- Boiling point: 100°C
- Density: 1.2 g/cm³
- Viscosity: 100 mPa.s
- Refractive index: 1.3
- Specific heat: 100 J/g K
- Odour: Pleasant

10.2 Other information

- The product is a mixture of hydrocarbons and other organic compounds.

11.1 Toxicological information

- Acute Tox. - 4 - H302
- Asp. Tox. - 1 - H304
- STOT SE - 3 - H336
- Aquatic Chronic - 1 - H410
- Aquatic Chronic - 2 - H411

11.2 Ecotoxicological information

- DURSBAN 4 UK (INCLUDING IRL)
- 5L LEAFLET LABEL
- CCL LABEL UK- KINGS LYNN
- EU 513
### EU 513

**CCL LABEL UK: KINGS LYNN**

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**Section 6: PPE**

No test data available

**Individual protection measures**

No test data available

**Respiratory protection:**

Use the following CE approved air-purifying respirator: Organic vapor cartridge with a particulate pre-filter, type AP2.

**Hand protection:**

Use chemical resistant gloves classified under Standard EN374: Protective gloves against chemicals, a glove with a protection class of 4 or higher (breakthrough time greater than 10.6 minutes).

---

**Section 9: Physical and Chemical Properties**

**Appearance:** Liquid.

**Physical state:** Liquid.

**Odour Threshold:** No data available

**Odour:** Evaporation.

**Surface tension:** 31 mN/m at 25 °C

**Molecular weight:** No data available

**Liquid Density:** 2.22 mPa.s at 40 °C

**Decomposition temperature:** None below 400 degC

**Partition coefficient:** n-octanol/water

**Surface tension:** 31 mN/m at 25 °C

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**Section 10: Stability and Reactivity**

**Stability:** Thermally stable at typical use temperatures.

**Conditions to avoid:** Avoid temperatures above 50 °C

**Incompatible materials:** Avoid contact with: Acids. Bases. Oxidizers.

**Chemical stability:**

**Reactivity:**

**Decomposition products:**

Decomposition products depend upon temperature, air supply and the presence of other elements.

**Specific Target Organ Systemic Toxicity (Repeated Exposure)**

May cause drowsiness or dizziness.

**Acute dermal toxicity:**

LD50, rat, female, > 300 - 500 mg/kg

**Acute oral toxicity:**

LD50, rabbit, male, 4,768 mg/kg

LC50, rat, female, 4 Hour, dust/mist, 2.86 mg/l

**Acute inhalation toxicity:**

As product:

LD50, rabbit, female, > 5,000 mg/kg

**Acute eye irritation:**

Brief contact may cause slight skin irritation with local redness.

**Skin corrosion/irritation:**

Prolonged skin contact is unlikely to result in absorption of harmful amounts.

**Serious eye damage/eye irritation:**

For the active ingredient(s): Based on a majority of negative data and some equivocal or marginally positive results, active ingredient(s) are not significantly toxic to the eye. At moderate to high concentrations, some eye irritation or temporary discomfort is possible.

**Inhalation toxicity:**

For the active ingredient(s): Did not cause cancer in laboratory animals.

**Carcinogenicity:**

For the minor component(s): Has caused cancer in laboratory animals. However, the relevance of this to humans is unknown.

**Toxicity to algae/aquatic plants:**

Ecotoxicological data for the active ingredient(s): Based on available data, there is no evidence that the active ingredient(s) are toxic to aquatic microorganisms, algae or fish. The active ingredient(s) are not likely to be toxic to algae. The active ingredient(s) are expected to be not toxic to fish.

**Toxicity to soil-dwelling organisms:**

LC50, Eisenia fetida (earthworms), 14 d, mortality, 313 mg/kg

**Toxicity to soil bacteria and fungi:**

ERc50, Pseudokirchneriella subcapitata (green algae), 72 Hour, Growth rate inhibition, 4.7 mg/l

**Toxicity to terrestrial plants:**

No data available

**Toxicity to non-target species:**

**Persistence and degradability:**

LC50, Apis mellifera (bees), 48 Hour, mortality, 0.22 micrograms/bee

**Biodegradability:**

No relevant data found.

**Toxicity to soil-dwelling organisms:**

LC50, Apis mellifera (bees), 48 Hour, mortality, 0.33 micrograms/bee

**Toxicity to non-target species:**

**Specific Target Organ Systemic Toxicity (Acute Exposure):**

May cause drowsiness or dizziness.

**Acute oral toxicity:**

LD50, rabbit, female, > 5,000 mg/kg

**Acute dermal toxicity:**

LD50, rat, female, > 300 - 500 mg/kg

**Acute inhalation toxicity:**

Prolonged excessive exposure may cause serious adverse effects, even death. May cause central nerve system depression.

**Acute eye irritation:**

Cataracts were observed in rats exposed to cumene vapors. Women who have become pregnant while using a pesticide containing chlorpyrifos (ISO) should consult their doctor, as chlorpyrifos (ISO) is suspected of causing birth defects.

**Toxicity to soil bacteria and fungi:**

No relevant data found.

**Toxicity to non-target species:**

**Specific Target Organ Systemic Toxicity (Repeated Exposure):**

May cause drowsiness or dizziness.

**Acute oral toxicity:**

LD50, rabbit, female, > 5,000 mg/kg

**Acute dermal toxicity:**

LD50, rat, female, > 300 - 500 mg/kg

**Acute inhalation toxicity:**

LD50, rabbit, male, 4,768 mg/kg

**Acute eye irritation:**

Serious eye damage/eye irritation

**Skin corrosion/irritation:**

Brief contact may cause slight skin irritation with local redness.

**Serious eye damage/eye irritation:**

Prolonged skin contact is unlikely to result in absorption of harmful amounts.

**Specific Target Organ Systemic Toxicity (Acute Exposure):**

May cause drowsiness or dizziness.

**Acute oral toxicity:**

LD50, rabbit, female, > 5,000 mg/kg

**Acute dermal toxicity:**

LD50, rat, female, > 300 - 500 mg/kg

**Acute inhalation toxicity:**

Prolonged excessive exposure may cause serious adverse effects, even death. May cause central nerve system depression.

**Acute eye irritation:**

Cataracts were observed in rats exposed to cumene vapors. Women who have become pregnant while using a pesticide containing chlorpyrifos (ISO) should consult their doctor, as chlorpyrifos (ISO) is suspected of causing birth defects.

**Toxicity to soil bacteria and fungi:**

No relevant data found.

**Toxicity to non-target species:**

**Specific Target Organ Systemic Toxicity (Repeated Exposure):**

May cause drowsiness or dizziness.
See SECTION 7: Handling and storage and SECTION 13: Disposal considerations for measures to prevent excessive environmental exposure controls.

No test data available.

Individual protection measures necessary for some operations.

Flash point closed cup

Boiling point (760 mmHg)

No test data available.

Melting point/range

pH

9.1

SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

Engineering controls:

Use the following CE approved air-purifying respirator: Organic vapor cartridge with a particulate pre-filter, type AP2.

For emergency conditions, use an approved positive-pressure self-contained breathing apparatus. In confined or poorly ventilated conditions, the choice of respirator (air-purifying or positive-pressure supplied-air) will depend on the specific operation and the potential airborne concentration of the substance.

If there are no applicable exposure limit requirements or guidelines, use an approved respirator. Selection of air-purifying or positive-pressure supplied-air will depend on the specific operation and the potential airborne concentration of the substance.

Eye/face protection:

Use chemical goggles. Chemical goggles should be consistent with EN 166 or equivalent.

Skin protection

When handling the material, protective clothing chemically resistant to this material. Selection of specific items such as face shield, protective clothing and gloves with appropriate barrier materials should be made.

Hand protection:

120 minutes according to EN 374) is recommended. When only brief contact is expected, a glove with a protection factor 5 or higher should be used.

Barriers include: Butyl rubber. Natural rubber (“latex”). Polyvinyl chloride (“PVC” or “vinyl”). Viton. When prolonged contact is expected, the use of leather gloves with a protection factor 5 or higher should be considered.

Use protective clothing chemically resistant to this material. Selection of specific items such as face shield, protective clothing and gloves with appropriate barrier materials should be made.

Decomposition temperature

Auto-ignition temperature

no data available

Partition coefficient: n-octanol/water

no data available

Upper explosion limit

no data available

Lower explosion limit

no data available

Oxidizing properties

No

Explosive properties

No

Kinematic Viscosity

2.09 mm²/s at 40 °C

Surface tension

31 mN/m at25 °C

Molecular weight

100

Liquid Density

1.10 g/cm³ at25 °C

Relative Density (water = 1)

1.10

Upper flammability limit

no data available

Lower flammability limit

no data available

Flash point open cup

104 °C

Flash point closed cup

105 °C

Flash point Snell's lamp

100 °C

Evaporation rate

14.4 mm²/h

Taste and Smell

No smell.

Taste

No

Thermally stable at typical use temperatures.

Polymerization will not occur.

Decomposition products depend upon temperature, air supply and the presence of other reactants.

For the major component(s): In animals, effects have been reported on the following organs:

- Liver
- Kidney

Excessive exposure may produce organophosphate type cholinesterase inhibition.

For the active ingredient(s):

Specific Target Organ Systemic Toxicity (Repeated Exposure)

May cause drowsiness or dizziness.

Specific Target Organ Systemic Toxicity (Single Exposure)

No relevant data found.

May cause drying and flaking of the skin.

Brief contact may cause slight skin irritation with local redness.

For the minor component(s):

Has caused cancer in laboratory animals. However, the relevance of this to humans is unknown.

Acute dermal toxicity

LD50, rat, female, > 300 - 500 mg/kg

Acute oral toxicity

LD50, rabbit, female, > 5,000 mg/kg

Acute eye irritation

Mild to Moderate irritation

Serious eye damage/eye irritation

May cause moderate eye irritation.

Reproductive toxicity

In laboratory animal studies, effects on reproduction have been seen only at doses that produced effects on other organs.

10.5 Incompatible materials:


10.6 Hazardous decomposition products:

Toxic gases are released during decomposition.

11. TOXICOLOGICAL INFORMATION

Acute toxicity to fish

LC50, Oncorhynchus mykiss (rainbow trout), flow-through test, 96 Hour, 0.15 mg/l

Acute toxicity to aquatic invertebrates

LC50, Oncorhynchus mykiss (rainbow trout), flow-through test, 96 Hour, 0.15 mg/l

Acute toxicity to algae/aquatic plants

LC50, Pseudokirchneriella subcapitata (green algae), 72 Hour, Growth rate inhibition, 4.7 mg/l

Toxicity to soil-dwelling organisms

ErC50, Pseudokirchneriella subcapitata (green algae), 72 Hour, Growth rate inhibition, 4.7 mg/l

12. ECOLOGICAL INFORMATION
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EU 513
CCL LABEL UK - KINGS LYNN

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Aquatic Acute - 1 - H400 - On basis of test data.
Aquatic Chronic - 1 - H410 - Calculation method

Identification Number:
101202923 / A293 / Issue Date: 21.07.2014 / Version: 1.0

DAS Code: EF-1551

Legend
ACGIH USA. ACGIH Threshold Limit Values (TLV)
IE OEL Ireland. List of Chemical Agents and Occupational Exposure Limit Values - Schedule 1

OEL Notation Absorbed via Skin, Biological Exposure Indice
OELV - 8 hrs (TWA) Occupational exposure limit value (8-hour reference period)

TWA 8-hour, time-weighted average

Information Source and References
This SDS is prepared by Product Regulatory Services and Hazard Communications Groups from information supplied by internal references within our company.

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