A systemic foliar applied herbicide for the post-emergence control of annual and perennial grass weeds in oilseed rape, swedes, turnips, linseed, combining peas, field beans, French dwarf beans, Navy beans, broad beans, potatoes, sugar beet, fodder beet, carrots and bulb onions.

An emulsifiable concentrate containing 100 g/l (9.7% w/w) propaquizafop. Also contains propylene carbonate and hydrocarbons, C10-C13, aromatics, <1% naphthalene.

Danger
May be fatal if swallowed and enters airways. Causes serious eye irritation. Toxic to aquatic life with long lasting effects. Repeated exposure may cause skin dryness or cracking. Contains propaquizafop. May produce an allergic reaction.
Keep out of reach of children.
Avoid breathing vapours/spray.
Wear protective gloves/protective clothing/eye protection/face protection.
IF SWALLOWED: immediately call a poison centre or doctor/physician.
IF IN EYES: rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
Do NOT induce vomiting.
UK only: Dispose of contents/container to a licensed hazardous waste disposal contractor or collection site except for empty, clean containers which can be disposed of as non-hazardous waste.
Ireland only: Dispose of contents/container to a licensed waste disposal contractor or collection site except for triple rinsed, empty containers which can be disposed of as non-hazardous waste.
To avoid risks to human health and the environment, comply with the instructions for use.
## IMPORTANT INFORMATION

**FOR PROFESSIONAL USE ONLY AS AN AGRICULTURAL AND HORTICULTURAL HERBICIDE**

<table>
<thead>
<tr>
<th>Crops/situations</th>
<th>Maximum individual dose (litres product/ha)</th>
<th>Maximum number of applications</th>
<th>Latest time of application</th>
<th>Aquatic buffer zone distance (metres)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Oilseed rape (winter)</td>
<td>1.5</td>
<td>One per crop</td>
<td>Before flower buds visible stage and 90 days before harvest</td>
<td>5</td>
</tr>
<tr>
<td>Oilseed rape (spring)</td>
<td>1.5</td>
<td>One per crop</td>
<td>Before eight fully expanded leaves stage and 90 days before harvest</td>
<td>5</td>
</tr>
<tr>
<td>Field bean</td>
<td>1.5</td>
<td>One per crop</td>
<td>Before flower buds visible stage and 7 weeks before harvest</td>
<td>5</td>
</tr>
<tr>
<td>Broad bean, French dwarf bean, Navy bean</td>
<td>1.5</td>
<td>One per crop</td>
<td>Before flower buds visible stage and 7 weeks before harvest</td>
<td>5</td>
</tr>
<tr>
<td>Linseed</td>
<td>1.5</td>
<td>One per crop</td>
<td>Before flower buds visible stage and 16 weeks before harvest</td>
<td>5</td>
</tr>
<tr>
<td>Sugar beet, fodder beet</td>
<td>1.5</td>
<td>One per crop</td>
<td>60 days before harvest</td>
<td>5</td>
</tr>
<tr>
<td>Swede, turnip</td>
<td>1.5</td>
<td>One per crop</td>
<td>30 days before harvest</td>
<td>5</td>
</tr>
<tr>
<td>Potato (maincrop), potato (early)</td>
<td>1.5</td>
<td>One per crop</td>
<td>30 days before harvest</td>
<td>5</td>
</tr>
<tr>
<td>Carrot</td>
<td>1.5</td>
<td>One per crop</td>
<td>30 days before harvest</td>
<td>5</td>
</tr>
<tr>
<td>Bulb onion</td>
<td>1.5</td>
<td>One per crop</td>
<td>30 days before harvest</td>
<td>5</td>
</tr>
<tr>
<td>Combining pea</td>
<td>1.5</td>
<td>One per crop</td>
<td>7 weeks before harvest</td>
<td>5</td>
</tr>
</tbody>
</table>

**Other specific restrictions:**

To avoid the build up of resistance do not apply products containing an ACCase inhibitor herbicide more than twice to any crop. In addition, do not use this product in mixture or sequence with any other product containing propaquizafop.

**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.**
SAFETY PRECAUTIONS

Operator Protection

UK only - Engineering control of operator exposure must be used where reasonably practicable, in addition to the following personal protective equipment:
WEAR SUITABLE PROTECTIVE CLOTHING (COVERALLS), SUITABLE PROTECTIVE GLOVES, RUBBER BOOTS AND FACE PROTECTION (FACESHIELD) when handling the concentrate.
WEAR SUITABLE PROTECTIVE GLOVES when handling contaminated surfaces.
WEAR SUITABLE PROTECTIVE CLOTHING (COVERALLS), SUITABLE PROTECTIVE GLOVES AND RUBBER BOOTS when applying by hand-held equipment.
UK only - However, engineering controls may replace personal protective equipment if a COSHH assessment shows they provide an equal or higher standard of protection.
TAKE OFF IMMEDIATELY all contaminated clothing.
WASH ALL PROTECTIVE CLOTHING thoroughly after use, especially the insides of gloves.
WASH HANDS AND EXPOSED SKIN before eating and drinking and after work.
WHEN USING, DO NOT EAT, DRINK OR SMOKE.

Environmental Protection

Do not contaminate water with the product or its container. Do not clean application equipment near surface water. Avoid contamination via drains from farmyards and roads.
UK only - To protect aquatic organisms respect an unsprayed buffer zone distance to surface water bodies in line with LERAP requirements.
DO NOT ALLOW DIRECT SPRAY from horizontal boom sprayers to fall within 5m of the top of the bank of a static or flowing waterbody, unless a Local Environmental Risk Assessment for Pesticides (LERAP – UK only) permits a narrower buffer zone, or within 1m of the top of a ditch which is dry at the time of application.

DO NOT ALLOW DIRECT SPRAY from hand-held sprayers to fall within 1m of the top of the bank of a static or flowing waterbody. Aim spray away from water.

UK only - This product qualifies for inclusion within the Local Environmental Risk Assessment for Pesticides (LERAP) scheme. Before each spraying operation from a horizontal boom sprayer, either a LERAP must be carried out in accordance with HSE’s published guidance or the statutory buffer zone must be maintained. The results of the LERAP must be recorded and kept available for three years.

Ireland only – Tractor mounted/trailed sprayer - To protect aquatic organisms respect an unsprayed buffer zone of 5m to surface water bodies.
Knapsack/handheld sprayer - To protect aquatic organisms respect an unsprayed buffer zone of 5m to surface water bodies.

Storage and Disposal

KEEP IN ORIGINAL CONTAINER, tightly closed, in a safe place.
WASH OUT CONTAINER THOROUGHLY, empty washings into spray tank and dispose of safely.
DO NOT RE-USE CONTAINER FOR ANY PURPOSE.

DIRECTIONS FOR USE

IMPORTANT: This information is approved as part of the Product Label. All instructions within this section must be read carefully in order to obtain safe and successful use of this product.

FALCON® is a systemic foliar applied herbicide for the post-emergence control of annual and perennial grass weeds in oilseed rape, swedes, turnips, linseed, combining peas, field beans, dwarf French bean and Navy beans, broad beans, potatoes, sugar beet, fodder beet, carrots and bulb onions.

Weeds must be emerged at the time of application.
RESTRICTIONS OR WARNINGS

FALCON is foliar acting and the dose is therefore independent of soil type.

Avoid overlaps.

Avoid spray drift onto neighbouring crops, especially cereal crops.

Peas and beans
If FALCON is applied during periods of high temperatures and/or low soil moisture content chlorotic spotting of the crop may result, particularly on combining peas and field beans, but there is no adverse effect on subsequent growth or yield of combining peas.

Carrots and onions
Crop effects can occur when the couch dose is applied at early growth stages in carrots and onions.

Potatoes
FALCON must not be applied to seed crops.

Crops suffering from frost damage should not be treated.

Qualified minor use recommendation
FALCON can also be used on dwarf French beans, broad beans and Navy beans as a qualified minor use recommendation as crop safety on these crops is based on limited evidence.

Resistance warning
This product contains propaquizafop which is an ACCase inhibitor, also classified by the Herbicide Resistance Action Committee as ‘Group A’. Use only as part of a resistance management strategy that includes cultural methods of control and does not use ACCase inhibitors as the sole chemical method of grass weed control. Applying a second product containing an ACCase inhibitor to a crop will increase the risk of resistance development, only use a second ACCase inhibitor to control different weeds at a different timing.

Strains of some annual grasses (e.g. wild oats and Italian ryegrass) have developed resistance to herbicides which may lead to poor control.

A strategy for preventing and managing such resistance should be adopted. Guidelines have been produced by the Weed Resistance Action Group and copies are available from the HGCA, CPA, your distributor, crop advisor or product manufacturer.

Specifically:

- To reduce the risk of developing resistance applications should be made to young, actively growing weeds.
- Use crop rotation and other cultural control measures to prevent and manage herbicide resistant grass weeds.
- Always follow WRAG guidelines for preventing and managing herbicide resistant grass weeds.
- Do not use FALCON or any other ACCase inhibitor as the sole means of grass weed control in successive crops.
- Use grass weed herbicides with different modes of action throughout the cropping rotation.
- Use tank/product mixes or sequences of herbicides with different modes of action within individual crops, or successive crops.
- Monitor weed control effectiveness and investigate any odd patches of poor grass weed control. If unexplained, contact your agronomist who may consider a resistance test appropriate.

WEED CONTROL

Speed of kill will be more rapid when weeds are growing actively under warm conditions with adequate moisture. Treatment under cool conditions will give slower activity. In poor conditions use the higher dose.

Weeds germinating after application will NOT be controlled.

Broad-leaved weeds will NOT be controlled.

The following weeds are controlled up to growth stages indicated at the dose indicated.
<table>
<thead>
<tr>
<th>Weed</th>
<th>Weed growth stage</th>
<th>Dose (^{(1)}) litre product/ha</th>
</tr>
</thead>
<tbody>
<tr>
<td>Volunteer barley</td>
<td>Optimum: 2 leaves unfolded to end of tillering. Latest: Stem erect</td>
<td>0.5 – 1.0</td>
</tr>
<tr>
<td>Volunteer wheat and rye</td>
<td>Optimum: 2 leaves unfolded to end of tillering. Latest: Stem erect</td>
<td>0.7 – 1.0</td>
</tr>
<tr>
<td>Wild oats</td>
<td>Optimum: 2 leaves unfolded to early tillering. Latest: Stem erect</td>
<td>0.7 – 1.0</td>
</tr>
<tr>
<td>Barley cover crops</td>
<td>Optimum: 2 leaves unfolded to stem erect. Latest: 2nd node detectable</td>
<td>1.0 – 1.2</td>
</tr>
<tr>
<td>Ryegrass (from seed)</td>
<td>Optimum: 2 leaves unfolded to early tillering. Latest: Before stem erect</td>
<td>1.2 – 1.5</td>
</tr>
<tr>
<td>Common couch</td>
<td>3 leaves unfolded (when majority of shoots have emerged and are approximately 15 cm tall)</td>
<td>1.5</td>
</tr>
<tr>
<td>Sterile brome ((Bromus sterilis))</td>
<td>Optimum: 2 expanded leaves to fully tillered.</td>
<td>0.7 – 1.0</td>
</tr>
</tbody>
</table>

**Notes:**

(1) Use highest dose specified if weeds are beyond optimum growth stage or under the following conditions:
- Poor growing conditions, e.g. cool temperatures, dry soil
- Overwintered weeds
- Severe weed infestations especially in non-competitive crops e.g. sugar beet, bulb onions and thin crops of oilseed rape

(2) Barley cover crops: spray when risk of wind blow has passed and before there is serious competition with the crop. Use the higher dose of 1.2 L/ha if spraying is late.

**Annual Meadowgrass**
Growth will be checked at doses of 0.7 – 1.0 L/ha and severely checked at 1.5 L/ha. These effects will be reduced if annual meadowgrass is beyond 3 leaves unfolded stage at spraying.

**Blackgrass**
FALCON can contribute to the control of blackgrass as part of a herbicide resistance management strategy, involving mixtures and sequences with herbicides of alternative modes of action. Where resistant biotypes are present control from FALCON will be unacceptable.
**CROP SPECIFIC INFORMATION**

FALCON may be applied to the following crops as indicated:

<table>
<thead>
<tr>
<th>Crop</th>
<th>Optimum time to commence spraying when crop is at the following GS</th>
<th>Latest application timing (PHI – Pre-Harvest Interval)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Oilseed rape, winter</td>
<td>Expanded cotyledons*</td>
<td>Before flower buds visible stage (PHI = 90 days)</td>
</tr>
<tr>
<td>Oilseed rape, spring</td>
<td>Expanded cotyledons*</td>
<td>Before 8 fully expanded leaves stage (PHI = 90 days)</td>
</tr>
<tr>
<td>Swedes, turnips</td>
<td>2 pairs of leaves</td>
<td>Before weeds are covered by the crop (PHI = 30 days)</td>
</tr>
<tr>
<td>Linseed</td>
<td>3 leaves</td>
<td>Before flower buds visible stage (PHI = 16 weeks)</td>
</tr>
<tr>
<td>Peas, combining</td>
<td>2 pairs of leaves (3rd node)</td>
<td>At flower buds visible stage (PHI = 7 weeks)</td>
</tr>
<tr>
<td>Field beans, winter and spring</td>
<td>2 pairs of leaves</td>
<td>Before flower bud visible stage (PHI = 7 weeks)</td>
</tr>
<tr>
<td>Broad bean, French dwarf bean and Navy bean</td>
<td>2 pairs of leaves</td>
<td>Before flower bud visible stage (PHI = 7 weeks)</td>
</tr>
<tr>
<td>Potatoes (Do not treat seed crops)</td>
<td>15-20 cm high</td>
<td>Before weeds are covered by the crop (PHI = 30 days)</td>
</tr>
<tr>
<td>Sugar beet, fodder beet</td>
<td>2 true leaves</td>
<td>Before weeds are covered by the crop (PHI = 60 days)</td>
</tr>
<tr>
<td>Carrots</td>
<td>1 true leaf</td>
<td>PHI = 30 days</td>
</tr>
<tr>
<td>Onions, bulb</td>
<td>Immediately post crook</td>
<td>PHI = 30 days</td>
</tr>
</tbody>
</table>

*1.5 L/ha (the common couch dose) must not be applied to crops of winter and spring oilseed rape before the 5 leaf stage of the crop.

**FOLLOWING CROPS**

If a crop treated with FALCON should fail for any reason, or after normal harvest, the minimum intervals listed must be observed before replanting any of the following crops:

- Winter wheat, winter barley: 2 weeks
- Peas, field beans, maize and winter oilseed rape: 4 weeks
- Winter oats: 16 weeks
- Ryegrass: 8 weeks
MIXING AND SPRAYING

FALCON should be applied as a FINE or MEDIUM spray (as defined by BCPC) in 100-200 litres water per hectare.

Good spray cover is essential for good results. Use the higher spray volume in dense crop or weed situations.

Half fill the spray tank with clean water and begin agitation. Add required quantity of FALCON to the tank and complete the filling. Continue agitation until spraying is completed. Spray immediately after mixing.

On emptying the container, RINSE CONTAINER THOROUGHLY by using an integrated pressure rinsing device or manually rinsing three times. Add washings to sprayer at time of filling and dispose of container safely.

Sprayers should be thoroughly cleaned before use and filters and nozzles checked for damage and blockage.

FALCON may be applied by tractor mounted/drawn sprayer. The sprayer should be calibrated to apply 200-250 L/ha as a FINE or MEDIUM spray (as defined by BCPC).

For knapsack sprayers:
Half fill the sprayer tank with clean water. Add the measured amount of product, with rinsings, to the sprayer tank and fit the tank lid. Gently shake the sprayer, by rocking, to ensure thorough mixing. Top up the tank with water to the correct level. Refit the tank lid and again gently shake the sprayer, by rocking, to ensure thorough mixing.

When used at a walking speed of 1 m/sec to apply a swath of 1 m width, most knapsack sprayers fitted with a Lurmark AN 2.0 or similar nozzle deliver approximately 200 L/ha spray volume (or 10 L per 500 m²).

Table for product amounts applied through a knapsack sprayer

<table>
<thead>
<tr>
<th>Rate of product L/ha</th>
<th>Amount product (ml) per L water applied at 200 L/ha water volume</th>
</tr>
</thead>
<tbody>
<tr>
<td>0.5</td>
<td>2.5</td>
</tr>
<tr>
<td>0.7</td>
<td>3.5</td>
</tr>
<tr>
<td>1.0</td>
<td>5.0</td>
</tr>
<tr>
<td>1.2</td>
<td>6.0</td>
</tr>
<tr>
<td>1.5</td>
<td>7.5</td>
</tr>
</tbody>
</table>

COMPATIBILITY

UK only - FALCON is compatible with the following products:
Cohort® or Crawler®
Always read the label of the partner product carefully before use.

Ireland only: For information on tank-mixes, consult Adama Agricultural Solutions UK Ltd, your agronomist or your distributor.
CONDITIONS OF SUPPLY

All products supplied by us are of high grade and conform to specification at the time of delivery, but, as we cannot exercise control over their subsequent storage, handling, mixing or use or the weather conditions before, during and after application which may affect the performance of the products, all conditions and warranties, statutory or otherwise, as to the quality or fitness for any purpose of our products are excluded and no responsibility or liability will be accepted by us or our re-sellers for any failure in performance, damage or injury to person or property whatsoever arising from the storage, handling, application or use of the products. These conditions cannot be varied by our staff or agents whether or not they supervise or assist in the use of such products.

Marketed by:
Adama Agricultural Solutions UK Ltd
Unit 15, Thatcham Business Village
Colthrop Way, Thatcham, Berkshire RG19 4LW
Tel: +44 (0)1635 860555
Technical Helpline: +44 (0)1635 876622
UK: www.adama.com
Ireland: www.adama.com/uk
Email: ukenquiries@adama.com

Falcon®, Cohort® and Crawler® are registered trademarks of a company of the Adama Group.
© 2014 Adama Agricultural Solutions UK Ltd
This Safety Data Sheet does not form part of the approved label. Following the instructions on the pesticide Product Label for the specified uses should ensure that the product is used safely and efficaciously for those uses.

SAFETY DATA SHEET
Safety Data Sheet according to Regulation (EC) No. 1907/2006 (REACH) Annex II

Revision Date 07-Nov-2013 Version 1
Product No. HRB00865-44 H-0198-29933/29933/AG-P6-100 EC

SECTION 1: IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY/UNDERTAKING

1.1. Product identifier
Falcon

1.2. Relevant identified uses of the substance or mixture and uses advised against
Recommended use Herbicide
Uses advised against No information available

1.3. Details of the supplier of the safety data sheet
Supplier address Adama Agricultural Solutions UK Ltd
Unit 15, Thatcham Business Village, Colthrop Way
Thatcham, Berkshire RG19 4LW
Tel: 01635 860555 Fax: 01635 861555

For further information, please contact
Email address ukenquiries@adama.com

1.4. Emergency telephone number
Emergency telephone National Chemical Emergency Centre (UK):
Tel: 01865 407333 (24 hours)

SECTION 2: HAZARD IDENTIFICATION

2.1 Classification of the substance or mixture
Classification according to Regulation (EC) No. 1272/2008 [CLP]
Aspiration hazard Category 1 - (H304)
Serious eye damage/eye irritation Category 2 - (H319)
Hazardous to the aquatic environment - Chronic hazard Category 2 - (H411)

Classification according to Directive 67/548/EEC or 1999/45/EC
R-phrases: see Section 16.
Xi;R36 - R66 - N;R51/53

2.2. Label elements
Labelling according to Regulation (EC) No. 1272/2008 [CLP]

Hazard pictograms

Signal word
Danger

Hazard statements
H304 - May be fatal if swallowed and enters airways.
H319 - Causes serious eye irritation.
H411 - Toxic to aquatic life with long lasting effects.

Precautionary statements
P102 - Keep out of reach of children.
P280 - Wear protective gloves/protective clothing/eye protection/face protection.
P305 + P351 + P338 - IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P331 - Do NOT induce vomiting.
P501 - Dispose of contents/container to an approved waste disposal plant.

EU specific hazard statements
EUH066 - Repeated exposure may cause skin dryness or cracking.
EUH208 - Contains Propaquizafop. May produce an allergic reaction.
EUH401 - To avoid risks to human health and the environment, comply with the instructions for use.

Additional phrases for PPP
SP1 - Do not contaminate water with the product or its container.

2.3. Other hazards
No information available
SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

<table>
<thead>
<tr>
<th>Chemical name</th>
<th>Weight-%</th>
<th>CAS No.</th>
<th>EC No.</th>
<th>Index No.</th>
<th>Classification according to Regulation (EC) No. 1272/2008 [CLP]</th>
<th>Classification according to 67/548/EEC</th>
<th>M-Factor</th>
<th>REACH Registration Number</th>
</tr>
</thead>
<tbody>
<tr>
<td>Propaquizafop</td>
<td>7-12</td>
<td>111479-05-1</td>
<td>-</td>
<td>-</td>
<td>Skin Sens. 1 (H317) Aquatic Acute 1 (H400) Aquatic Chronic 1 (H410)</td>
<td>Xi; R43 N; R50-53</td>
<td>-</td>
<td>01-21195372 32-48-0000</td>
</tr>
<tr>
<td>Propylene carbonate</td>
<td>4-7</td>
<td>108-32-7</td>
<td>203-572-1</td>
<td>607-194-00-1</td>
<td>Eye Irrit. 2 (H319)</td>
<td>Xi; R36</td>
<td>-</td>
<td></td>
</tr>
<tr>
<td>A fatty alcohol polyglycol ether</td>
<td>34-38</td>
<td>9043-30-5</td>
<td>-</td>
<td>-</td>
<td>Acute Tox. 4 (H302) Eye Dam. 1 (H318)</td>
<td>Xn; R22 Xr; R41</td>
<td>-</td>
<td></td>
</tr>
<tr>
<td>Hydrocarbons, C10-C13, aromatics, &lt;1% naphthalene</td>
<td>40-45</td>
<td>N/A</td>
<td>922-153-0</td>
<td>-</td>
<td>Asp. Tox. 1 (H304) Aquatic Chronic 2 (H411) (EUH066)</td>
<td>Xn; R65 R66 N; R51/53</td>
<td>01-21194510 97-39-0005</td>
<td></td>
</tr>
</tbody>
</table>

Full text of R-phrases: see Section 16. Full text of H- and EUH-phrases: see Section 16.

SECTION 4: FIRST AID MEASURES

4.1. Description of first aid measures

General advice
In case of accident or unwellness, seek medical advice immediately (show directions for use or safety data sheet if possible). First aider: Pay attention to self-protection!

Inhalation
Remove to fresh air. If breathing is irregular or stopped, administer artificial respiration. Call a physician.

Skin contact
Wash off immediately with soap and plenty of water while removing all contaminated clothes and shoes. Consult a physician if necessary.

Eye contact
Immediately flush with plenty of water. After initial flushing, remove any contact lenses and continue flushing for at least 15 minutes. Keep eye wide open while rinsing. If symptoms persist, call a physcian.

Ingestion
Do NOT induce vomiting. Immediate medical attention is required. Rinse mouth.

Self-protection of the first aider
Use personal protective equipment as required.

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

Symptoms
None known

4.3. Indication of any immediate medical attention and special treatment needed

Note to physicians
Treat symptomatically.

SECTION 5: FIREFIGHTING MEASURES

5.1. Extinguishing media

Suitable extinguishing media
Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.

Unsuitable extinguishing media
No information available.

5.2. Special hazards arising from the substance or mixture

No specific hazard known.

5.3. Advice for firefighters

In the event of fire, wear self-contained breathing apparatus. In the event of fire and/or explosion do not breathe fumes.

SECTION 6: ACCIDENTAL RELEASE MEASURES

6.1. Personal precautions, protective equipment and emergency procedures

Personal precautions
Use personal protective equipment as required. Avoid contact with eyes and skin. Evacuate personnel to safe areas. Keep people away from and upwind of spill/leak.

For emergency responders
Use personal protection recommended in Section 8.

6.2. Environmental precautions

Prevent entry into waterways, sewers, basements or confined areas. Do not flush into surface water or sanitary sewer system. Prevent further leakage or spillage if safe to do so. Prevent product from entering drains.

6.3. Methods and material for containment and cleaning up

Methods for cleaning up
Take up mechanically, placing in appropriate containers for disposal.

6.4. Reference to other sections

Other information
See also Sections 8 and 13.
SECTION 7: HANDLING AND STORAGE

7.1. Precautions for safe handling

Advice on safe handling
Use personal protective equipment as required. Use only with adequate ventilation. Use with local exhaust ventilation. Do not breathe dust/fume/gas/mist/vapours/spray.

General hygiene considerations
When using do not eat, drink or smoke. Wash contaminated clothing before reuse. Regular cleaning of equipment, work area and clothing is recommended.

7.2. Conditions for safe storage, including any incompatibilities

Storage conditions

7.3. Specific end use(s)

Risk Management Methods (RMM)
The information required is contained in this Material Safety Data Sheet.

SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

8.1. Control parameters

Derived No Effect Level (DNEL)
No information available.

Predicted No Effect Concentration (PNEC)
No information available.

8.2. Exposure controls

Engineering controls
Ensure adequate ventilation, especially in confined areas.

Personal protective equipment

Eye/face protection  Tight sealing safety goggles.

Body protection  Suitable protective clothing, apron, gloves made of plastic or rubber.

General hygiene considerations
When using do not eat, drink or smoke. Wash contaminated clothing before reuse. Regular cleaning of equipment, work area and clothing is recommended.

Environmental exposure controls
Do not allow into any sewer, on the ground or into any body of water.

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

9.1. Information on basic physical and chemical properties

<table>
<thead>
<tr>
<th>Property</th>
<th>Values</th>
<th>Method</th>
<th>Remarks</th>
</tr>
</thead>
<tbody>
<tr>
<td>Appearance</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Physical state</td>
<td>Liquid</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Colour</td>
<td>Amber</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Odour</td>
<td>Aromatic</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Odour threshold</td>
<td>No data available</td>
<td>CIPAC MT 75.3</td>
<td>Not applicable</td>
</tr>
<tr>
<td>pH</td>
<td>: 4.2 - 5.2</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Melting point/freezing point °C</td>
<td>---</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Boiling point.boiling range °C</td>
<td>No data available</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Flash point °C</td>
<td>: 102.6</td>
<td>CIPAC MT 12</td>
<td></td>
</tr>
<tr>
<td>Evaporation rate</td>
<td>Not applicable</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Flammability (solid, gas)</td>
<td>Not applicable for liquids</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Upper/lower flammability or</td>
<td>No data available</td>
<td></td>
<td></td>
</tr>
<tr>
<td>explosive limits</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Vapour pressure</td>
<td>---</td>
<td></td>
<td>Not applicable</td>
</tr>
<tr>
<td>Vapour density</td>
<td>No data available</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Relative density</td>
<td>: 1.043</td>
<td>CIPAC MT 3.3</td>
<td>20°C</td>
</tr>
<tr>
<td>Solubility(ies)</td>
<td>---</td>
<td></td>
<td>Not applicable</td>
</tr>
<tr>
<td>Partition coefficient</td>
<td></td>
<td></td>
<td>See Section 12 for more information</td>
</tr>
<tr>
<td>(n-octanol/water) Log Pow</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Autoignition temperature °C</td>
<td>: 354</td>
<td>EEC A.15</td>
<td></td>
</tr>
<tr>
<td>Decomposition temperature °C</td>
<td>No data available</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Kinematic viscosity mm²/s 40°C</td>
<td>: 16.2</td>
<td>OECD 114</td>
<td></td>
</tr>
<tr>
<td>Explosive properties</td>
<td>Not an explosive</td>
<td>EEC A.14</td>
<td></td>
</tr>
<tr>
<td>Oxidising properties</td>
<td>Not oxidising</td>
<td></td>
<td></td>
</tr>
<tr>
<td>9.2. Other information</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Bulk density g/ml</td>
<td>---</td>
<td>EEC A.5</td>
<td>Not applicable</td>
</tr>
<tr>
<td>Surface tension mN/m</td>
<td>: 26.9</td>
<td>EEC A.5</td>
<td>25°C</td>
</tr>
</tbody>
</table>
SECTION 10: STABILITY AND REACTIVITY

10.1. Reactivity
Not available.

10.2. Chemical stability
Stable under normal conditions.

10.3. Possibility of hazardous reactions
None under normal processing.

10.4. Conditions to avoid
Heat, flames and sparks.

10.5. Incompatible materials
No information available

10.6. Hazardous decomposition products
Chemical name
Propaquizafop Carbon oxides, Nitrogen oxides (NOx).

SECTION 11: TOXICOLOGY INFORMATION

11.1. Information on toxicological effects

Acute toxicity

<table>
<thead>
<tr>
<th>Values</th>
<th>Species</th>
<th>Method</th>
<th>Remarks</th>
</tr>
</thead>
<tbody>
<tr>
<td>Oral LD50 mg/kg : &gt; 2000</td>
<td>Rat</td>
<td>OECD 423</td>
<td></td>
</tr>
<tr>
<td>Dermal LD50 mg/kg : &gt; 2000</td>
<td>Rat</td>
<td>OECD 402</td>
<td></td>
</tr>
<tr>
<td>Inhalation LC50 mg/l/4h : &gt; 5.15</td>
<td>Rat</td>
<td>OECD 403</td>
<td></td>
</tr>
<tr>
<td>Skin corrosion/irritation : Non-irritating to the skin</td>
<td>Rabbit</td>
<td>OECD 404</td>
<td></td>
</tr>
<tr>
<td>Serious eye damage/eye irritation : Irritating to eyes</td>
<td>Rabbit</td>
<td>OECD 405</td>
<td></td>
</tr>
<tr>
<td>Respiratory/skin sensitisation : Not a skin sensitiser</td>
<td>Guinea pig</td>
<td>OECD 406</td>
<td></td>
</tr>
</tbody>
</table>

Chronic toxicity

Germ cell mutagenicity
Chemical name
Propaquizafop : Not classified

Carcinogenicity
Chemical name
Propaquizafop : Not carcinogenic

Reproductive toxicity
Chemical name
Propaquizafop : Not toxic for the reproductive system

STOT - single exposure
Chemical name
Propaquizafop : Not available

STOT - repeated exposure
Chemical name
Propaquizafop : Not available

Aspiration hazard
Chemical name
Propaquizafop : Not available
12.1. Toxicity

**Acute toxicity**

**Aquatic toxicity**

<table>
<thead>
<tr>
<th>Values</th>
<th>Species</th>
<th>Method</th>
<th>Remarks</th>
</tr>
</thead>
<tbody>
<tr>
<td>6.53</td>
<td>Rainbow trout</td>
<td>OECD 203</td>
<td></td>
</tr>
<tr>
<td>12.9</td>
<td>Daphnia magna</td>
<td>OECD 202</td>
<td></td>
</tr>
<tr>
<td>2.99</td>
<td>D. Subspicatus</td>
<td>OECD 201</td>
<td>Biomass</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Not available</td>
</tr>
</tbody>
</table>

**Terrestrial toxicity**

**Birds oral LD50 mg/kg**

Chemical name

Propaquizafop : > 2000 Bobwhite quail EPA-FIFRA 71-1

Bees oral LD50 mcg/bee

Chemical name

Propaquizafop : --- Not toxic to bees

12.2. Persistence and degradability

**Abiotic degradation**

**Values**

<table>
<thead>
<tr>
<th>Chemical name</th>
<th>Method</th>
<th>Remarks</th>
</tr>
</thead>
<tbody>
<tr>
<td>Propaquizafop</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Water DT50 days**

Chemical name

Propaquizafop : 32 EPA-FIFRA 161-2, 161-3 pH 7, 25°C

**Soil DT50 days**

Chemical name

Propaquizafop : --- No data available

**Biodegradation**

Chemical name

Propaquizafop : Not readily biodegradable OECD 301 B

12.3. Bioaccumulative potential

**Partition coefficient**

(n-octanol/water) Log Pow

Chemical name

Propaquizafop : 4.78 OECD 117 25°C

**Bioconcentration factor (BCF)**

Chemical name

Propaquizafop : --- Low

12.4. Mobility in soil

**Adsorption/desorption**

Chemical name

Propaquizafop : --- OECD 106 No data available

12.5. Results of PBT and vPvB assessment

The components in this formulation do not meet the criteria for classification as PBT or vPvB.

12.6. Other adverse effects

No information available.

SECTION 13: DISPOSAL CONSIDERATIONS

13.1. Waste treatment methods

**Waste from residues/unused products**

Disposal should be in accordance with applicable regional, national and local laws and regulations.

**Contaminated packaging**

Improper disposal or reuse of this container may be dangerous and illegal.

**Other information**

Waste codes should be assigned by the user based on the application for which the product was used.
**SECTION 14: TRANSPORTATION INFORMATION**

IMDG/IMO
14.1 UN/ID No. 3082
14.2 Proper shipping name
ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (Propaquizafop Hydrocarbons, C10-13, aromatics, <1% naphthalene)
14.3 Hazard class 9
14.4 Packing group III
14.5 Marine pollutant Yes
14.6 Special precautions for user

RID/ADR
14.1 UN/ID No. 3082
14.2 Proper shipping name
ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (Propaquizafop Hydrocarbons, C10-13, aromatics, <1% naphthalene)
14.3 Hazard class 9
14.4 Packing group III
14.5 Environmental hazard Yes
14.6 Special precautions for user

ICAO/IATA
14.1 UN/ID No. 3082
14.2 Proper shipping name
ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (Propaquizafop Hydrocarbons, C10-13, aromatics, <1% naphthalene)
14.3 Hazard class 9
14.4 Packing group III
14.5 Environmental hazard Yes
14.6 Special precautions for user

14.7 Transport in bulk according to Annex II of MARPOL 73/78 and the IBC code Not applicable

**SECTION 16: OTHER INFORMATION**

Full text of R-phrases referred to under Sections 2 and 3.
R66 - Repeated exposure may cause skin dryness or cracking
R65 - Harmful: may cause lung damage if swallowed
R41 - Risk of serious damage to eyes
R22 - Harmful if swallowed
R43 - May cause sensitisation by skin contact
R36 - Irritating to eyes
R51/53 - Toxic to aquatic organisms, may cause long term adverse effects in the aquatic environment
R50/53 - Very toxic to aquatic organisms, may cause long term adverse effects in the aquatic environment

Full text of H-Statements referred to under Sections 2 and 3.
H319 - Causes serious eye irritation
H317 - May cause an allergic skin reaction
H400 - Very toxic to aquatic life
H410 - Very toxic to aquatic life with long lasting effects
H302 - Harmful if swallowed
H318 - Causes serious eye damage
H304 - May be fatal if swallowed and enters airways
H411 - Toxic to aquatic life with long lasting effects
EUH066 - Repeated exposure may cause skin dryness or cracking

This material safety data sheet complies with the requirements of Regulation (EC) No. 1907/2006

Disclaimer
The information provided in this Material Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text.

End of Safety Data Sheet

**Section 15: REGULATORY INFORMATION**

15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture
15.2. Chemical safety assessment
A chemical safety assessment according to regulation (EC) No. 1907/2006 is not required. A risk assessment was performed according to directive (EC) No. 91/414 or according to regulation (EC) No. 1107/2009.
SAFETY PRECAUTIONS

Operator Protection
UK only - Engineering control of operator exposure must be used where reasonably practicable, in addition to the following personal protective equipment:

- WEAR SUITABLE PROTECTIVE CLOTHING (COVERALLS),
- SUITABLE PROTECTIVE GLOVES,
- RUBBER BOOTS AND FACE PROTECTION (FACESHIELD) when handling the concentrate.
- WEAR SUITABLE PROTECTIVE GLOVES when handling contaminated surfaces.
- WEAR SUITABLE PROTECTIVE CLOTHING (COVERALLS), SUITABLE PROTECTIVE GLOVES AND RUBBER BOOTS when applying by hand-held equipment.

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

TAKE OFF IMMEDIATELY all contaminated clothing.

Environmental Protection
Do not contaminate water with the product or its container. Do not clean application equipment near surface water. Avoid contamination via drains from farmyards and roads.

UK only - To protect aquatic organisms respect an unsprayed buffer zone distance to surface water bodies in line with LERAP requirements.

DO NOT ALLOW DIRECT SPRAY from horizontal boom sprayers to fall within 5m of the top of the bank of a static or flowing waterbody, unless a Local Environmental Risk Assessment for Pesticides (LERAP – UK only) permits a narrower buffer zone, or within 1m of the top of a ditch which is dry at the time of application.

DO NOT ALLOW DIRECT SPRAY from hand-held sprayers to fall within 1m of the top of the bank of a static or flowing waterbody. Aim spray away from water.

Storage and Disposal
KEEP IN ORIGINAL CONTAINER, tightly closed, in a safe place.

WASH OUT CONTAINER THOROUGHLY, empty washings into spray tank and dispose of safely.

DO NOT RE-USE CONTAINER FOR ANY PURPOSE.

IMPORTANT INFORMATION

FOR PROFESSIONAL USE ONLY AS AN AGRICULTURAL AND HORTICULTURAL HERBICIDE

Crops/situations:
- Oilseed rape (winter & spring), field bean, broad bean, French dwarf bean, Navy bean, linseed, sugar beet, fodder beet, swede, turnip, potato (maincrop & early), carrot, bulb onion and combining pea.

Maximum individual dose (litres product/ha)  
Maximum number of applications  
Latest time of application  
Aquatic buffer zone distance (metres)  
Other specific restrictions

Full details are given in the information box within the attached leaflet.

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.