SIGNAL® 300ES

MAPP 15949

SEED TREATMENT

SIGNAL® 300 ES

An emulsion for seed treatment formulation containing 300 g/L cypermethrin

WARNING:

HARMFUL IF SWALLOWED
MAY CAUSE RESPIRATORY IRRITATION
VERY TOXIC TO AQUATIC LIFE WITH LONG LASTING EFFECTS

AVOID BREATHING DUST/FUME/GAS/MIST/VAPOURS/SPRAY
AVOID RELEASE TO THE ENVIRONMENT
CALL A POISON CENTRE OR DOCTOR/PHYSICIAN IF YOU FEEL UNWELL
COLLECT SPILLAGE
STORE IN A WELL-VENTILATED PLACE. KEEP CONTAINER TIGHTLY CLOSED
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

Contains 1,2-benzisothiazol-3(2H)-one. May produce an allergic reaction.
To avoid risks to human health and the environment, comply with the instructions for use.

GB-CY3-045-04 (0719)

Emulsion for seed treatment containing 300 g/L cypermethrin

For the reduction of wireworm *(Agriotes spp.)* and wheat bulb fly *(Delia coarctata)* in wheat and barley

The (COSHH) Control of Substances Hazardous to Health Regulations may apply to use of this product at work.

AGITATE WELL BEFORE USE

Approval Holder:
Arysta LifeScience Registrations Great Britain Ltd,
Brooklands Farm, Cheltenham Road, Evesham,
Worcestershire, WR11 2LS

Marketing Company:
Arysta LifeScience Great Britain Ltd.
3-5 Melville Street, Edinburgh, United Kingdom,
EH3 7PE
Tel.: 01482 231772

In case of toxic or transport emergency, ring + 44 (0) 1235 239 670 (24 hour).

IMPORTANT INFORMATION

FOR USE ONLY AS AN AGRICULTURAL SEED TREATMENT

Crops :	Wheat (seed)	Barley (seed)
Maximum individual dose:	2.0 L product per 1000 kg seed	2.0 L product per 1000 kg seed
Maximum number of treatments:	one per batch	one per batch
Latest time of application:	pre-drilling	pre-drilling
Other specific restrictions:	Signal 300 ES must only be applied to cereal seed sown in the autumn/winter.	

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.

Batch No.: see container

SIGNAL® 300 ES is property of Arysta LifeScience Group

SAFETY PRECAUTIONS (when handling the concentrate)

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

WEAR SUITABLE PROTECTIVE CLOTHING (COVERALLS) AND SUITABLE PROTECTIVE GLOVES when handling the product, contaminated surfaces or treated seed.

WEAR SUITABLE PROTECTIVE CLOTHING (COVERALLS), SUITABLE PROTECTIVE GLOVES AND SUITABLE RESPIRATORY PROTECTIVE EQUIPMENT* when cleaning equipment.
*disposable filtering facepiece respirator to at least EN 149 FFP3, or equivalent.

WEAR SUITABLE PROTECTIVE CLOTHING (COVERALLS) when bagging treated seed.

WEAR SUITABLE PROTECTIVE CLOTHING (COVERALLS) AND SUITABLE PROTECTIVE GLOVES when re-circulating the product, draining down and carrying out any coupling and uncoupling procedures.
However engineering controls may replace personal protective equipment if a COSHH assessment shows that they provide an equal or higher standard of protection

WASH HANDS AND EXPOSED SKIN before meals and after work.
WASH CONCENTRATE from skin or eyes immediately.
IF YOU FEEL UNWELL, seek medical advice immediately (show the label where possible).
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. To protect birds/wild mammals, treated seed should not be left on the soil surface. Bury or remove spillages.

Storage and disposal
KEEP AWAY FROM FOOD, DRINK AND ANIMAL FEEDING STUFFS.
KEEP OUT OF REACH OF CHILDREN.
KEEP IN ORIGINAL CONTAINER, tightly closed, in a safe place.
WASH OUT CONTAINER THOROUGHLY and dispose of safely.
DO NOT REUSE CONTAINER FOR ANY OTHER PURPOSE.

SAFETY PRECAUTIONS (when handling treated seed).

LABEL TREATED SEED with the appropriate precautions using printed sacks, labels or bag tags.

WEAR SUITABLE PROTECTIVE CLOTHING (COVERALLS) AND SUITABLE PROTECTIVE GLOVES when handling treated seed.
DO NOT HANDLE seed unnecessarily.
DO NOT USE TREATED SEED as food or feed.
KEEP TREATED SEED SECURE from people, domestic stock/pets and wildlife at all times during storage and use.
HARMFUL TO GAME AND WILDLIFE. Treated seed should not be left on the soil surface. Bury spillages.
DO NOT RE-USE SACKS OR CONTAINERS THAT HAVE BEEN USED FOR TREATED SEED for food or feed.
WASH HANDS AND EXPOSED SKIN before meals and after work.
DO NOT APPLY TREATED SEED FROM THE AIR.

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.

RESTRICTIONS
Do not treat seed with a moisture content exceeding 16%.
Do not apply SIGNAL 300 ES to cracked, split or sprouted seed or seed of low germination capacity or vigour.
Seed treated with SIGNAL 300 ES should preferably be drilled in the season of treatment. Although testing has shown SIGNAL 300 ES to have no effect on the storage life of treated seed, the subsequent germination and performance of treated seed may be adversely affected by the physical conditions of storage. The germination capacity of stored seed should therefore be checked thoroughly prior to use. Arysta LifeScience accepts no liability for the performance of stored, treated seed.
Flow of seed through drills may be affected by SIGNAL 300 ES. Always re-calibrate your seed drill with treated seed before drilling.
Treated seed should be stored in a cool, dry, frost-free, well-ventilated building.
Signal 300 ES must be co-applied with a suitable seed treatment fungicide for the control of seed and soil-borne disease

Insect control
SIGNAL 300 ES is an emulsion seed treatment containing the insecticide cypermethrin for the reduction of wireworm (Agriotes spp.) and improved plant stand, and the reduction of wheat bulb fly (Delia coarctata) damage on wheat and barley.

Cypermethrin is a non-systemic soil acting pyrethroid, which kills or repels the larvae of wheat bulb fly which attack young seedlings from below the soil surface. SIGNAL 300 ES provides a zone of protection around the germinating seedling.

In situations where wheat bulb fly egg counts indicate a high risk of severe damage, a follow-up egg hatch or deadheart spray may be required. Where earlier drillings are combined with a late egg hatch, follow-up sprays may also be required.

Caution: The possible development of pest strains resistant to SIGNAL 300 ES cannot be predicted or excluded. If such resistant strains occur, SIGNAL 300 ES is unlikely to give satisfactory control.

Drill treated seed at 2.5-4 cm depth into a firm, well prepared seedbed offering optimal conditions for crop emergence and establishment. Poor seedbeds, deep or shallow drilling may reduce the level of pest control obtained.

Application rates

CROP	TARGET/CLAIM	RATE OF 'Signal 300 ES' PER 1000 KG SEED
Wheat and Barley	Reduction of : Wireworm *(Agriotes spp.)* Reduction of : Wheat bulb fly *(Delia coarctata)*	2.0 L

Qualified recommendation on wheat and barley
Effectiveness data on Wheat bulb fly have been extrapolated to claim for some control on Frit fly (*Oscinella frit*).

Application
SIGNAL 300 ES can be applied through most seed treatment machines, both batch and continuous types, where secondary mixing is provided. The machines should be calibrated to apply the recommended dose, and this amount should be distributed evenly between the seeds with good coverage to provide optimum pest control.

A minimum total volume of 4.0 litres (dilution factor of 2) is required. For further information see the compatibility section below.

After application, machinery and pipelines must be washed with clean water.

Compatibility
SIGNAL 300 ES should not be pre-mixed with any other seed treatment product. Signal may be co-applied with Anchor or Rancona 15 ME. For information on compatibility with other products please contact Arysta LifeScience.

CONTAINER OPERATING PROCEDURES

GENERAL GUIDELINES

1. Although larger than some packs this container is governed by all the rules of storage and usage of any other pesticide container.
2. This container is returnable to Arysta LifeScience.
3. Products other than Signal 300 ES should not be put into this container by the user.
4. Any damage to the container should be reported immediately to Arysta LifeScience.
5. The coupling used in this container is a self-sealing, non-drip type. During use air is vented in as product is dispensed out through the dry-break, one-way valve system.

TRANSPORTATION AND STORAGE

1. The container should only be transported by suitable mechanical means.
2. Containers containing pesticide must be stored in a BASIS registered store on a flat and level surface. Empty containers need not be stored in the BASIS registered store but must be kept in a suitable secure area until they are returned.
3. The container should not be used to support any other structure, shelving or equipment.
4. During transportation the empty container must be regarded as containing pesticide and treated as such.

USING THE CONTAINER
WEAR SUITABLE PROTECTIVE CLOTHING (COVERALLS) AND SUITABLE PROTECTIVE GLOVES when carrying out any coupling or uncoupling procedures.

1. Before the container is removed from the store, the seals on both the top closures should be checked to ensure they are both intact.
2. When the container is taken into the working area it must stand on a flat surface in a bunded area which complies with all national and local regulations for spillage.
3. Remove the tamper-evident seal on the closed dispense coupling drum valve.
4. The coupler on the supply hose to the seed treater should be checked to ensure it is clean and undamaged.
5. The coupler can then be slid fully onto the drum valve and locked into place by squeezing two handles together and pushing firmly down. The coupler will lock into place and be secure for use. If difficulty is experienced in locking the two parts together then slide them apart, check for foreign matter, cleaning off as necessary with absorbent paper and repeat the locking process.

Any absorbent paper used in the cleaning operation should be disposed of safely.

6. Product can then be pumped out of the container as required. The level of product in the drum can be monitored visually.
7. Care should be taken to ensure the container does not become empty during use.
8. When the container is empty, the seed treater should be turned off and the coupling unlocked and removed. This is done by squeezing together the two handles on the coupler and lifting them up. The coupler can then be slid off the drum valve.

CARE SHOULD BE TAKEN TO ENSURE THAT THE VALVE HAS SEALED AND PRODUCT DOES NOT LEAK FROM THE COUPLER. IF THE COUPLER DOES LEAK, RE-CONNECT AND DISCONNECT THE TWO PARTS AGAIN TO FREE THE VALVE.

CARE SHOULD ALSO BE TAKEN TO PREVENT THE COUPLER DROPPING ONTO THE FLOOR AND BEING DAMAGED.

AS THE COUPLING IS A DRY BREAK SYSTEM A VERY SMALL AMOUNT OF PRODUCT MAY BE VISIBLE, THIS SHOULD BE WIPED WITH ABSORBENT PAPER AND DISPOSED OF SAFELY.

9. The container can now be removed and another put in its place.

DRAINING DOWN

WEAR SUITABLE PROTECTIVE CLOTHING (COVERALLS) AND SUITABLE PROTECTIVE GLOVES when draining down the product.

1. Care should be taken to minimise the risk of spillage whilst draining down product from the container. It is recommended that this procedure takes place either within the bunded area where the container is used or in the BASIS registered store.
2. It is advisable to lift the container with a forklift truck to sufficient height to allow a suitable, sealable container, to be positioned beneath. It is recommended that a funnel is used to minimise the risk of spillage.

DO NOT LEAVE PRODUCT IN AN UNLABELLED CONTAINER. POUR CONTENTS INTO A SMALLER CONTAINER OF THE SAME PRODUCT OR INTO THE NEW 200 LITRE CONTAINER TO BE USED.

3. When all of the product has been removed from the container the seal should be replaced securely.

The washings and absorbent paper used in the cleaning operation should be disposed of safely.

4. The product collected by this process should be ideally returned to the new 200 litre container to be used, ensuring there is sufficient space in the container for the additional product. Any spillage of product should be removed with absorbent paper.

The funnel and the container should be washed and dried and the washings and absorbent paper disposed of safely.

RETURNING CALIBRATION MATERIAL

It is inevitable that when a seed treatment machine is calibrated a small amount of product will be collected. This should be returned to the container as per instruction number 4 above.

AGITATING PRODUCT BEFORE USE

WEAR SUITABLE PROTECTIVE CLOTHING (COVERALLS) AND SUITABLE PROTECTIVE GLOVES when re-circulating the product.

The motion imparted during transport and delivery of the product will result in sufficient agitation to ensure homogeneity for at least 6 months.

If the product has not been used within 6 months of delivery, it is advisable to re-mix the product to ensure that the contents of the container are homogenous. This can be done by re-circulating the product for a minimum of 15 minutes with a pump (depending on the volume of product in the container) to withdraw product using the coupler and return via the second closure. Any pump having a gentle action can be used. Do not use high speed or centrifugal type pumps.

ARYSTA LIFESCIENCE CORPORATION ACCEPTANCE OF RESPONSIBILITY

We accept responsibility for this product meeting the declared specification and also for our written directions for use and warnings. Users however should beware that no responsibility can be accepted for use which disregards our written instructions, including directions, warnings and precautions, nor for any advice given by any person whether verbal or written, about storage, mixing and application, or about any use which is not strictly in accordance with our written instructions.

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Arysta LifeScience