

CERALL®

Cerall® is a seed treatment for use against the principal seed-borne diseases and soil-borne bunt in wheat, rye and triticale.

MAPP No. 19001

Cerall® is a flowable concentrate for seed treatment containing 10^9 - 10^{10} CFU/ml *Pseudomonas chlororaphis* strain MA 342 (20% by weight).

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

Authorisation Holder: KOPPERT BV, Veilingweg 14, 2651 AD Berkel en Rodenrijs, The Netherlands.

Marketing Company: KOPPERT UK LTD, 53 Hollands Road, Haverhill, Suffolk, CB9 8PJ, Tel. 01440 704488.

This container should be handled only by mechanical means.

200 litres

IMPORTANT INFORMATION

FOR USE ONLY AS A PROFESSIONAL AGRICULTURAL SEED TREATMENT

Cerall® is a seed treatment for use against *Tilletia tritici*, *Septoria nodorum* and *Fusarium* spp. on wheat (seed), rye (seed) and triticale (seed).

Maximum individual dose: 10 ml product/kg seed (10 l product/tonne seed)

Maximum number of treatments: one per batch of seed

Latest time of application: before drilling

This product must be used within 12 weeks of the date of manufacture.

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

Contains *Pseudomonas chlororaphis* MA 342: May produce an allergic reaction. Micro-organisms may have the potential to provoke sensitising reactions.

Operator Protection:

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 AND SUITABLE RESPIRATORY PROTECTIVE EQUIPMENT* when handling the concentrate, handling contaminated surfaces or handling treated seed. *Disposable filtering facepiece respirator to at least EN149 FFP3 or equivalent.

WEAR SUITABLE PROTECTIVE CLOTHING (COVERALLS), SUITABLE PROTECTIVE GLOVES AND SUITABLE RESPIRATORY PROTECTIVE EQUIPMENT* when bagging treated seed. *Disposable filtering facepiece respirator to at least EN149 FFP3 or equivalent.

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

WHEN USING DO NOT EAT, DRINK OR SMOKE

WASH HANDS AND EXPOSED SKIN before meals and after work

IF YOU FEEL UNWELL, seek medical advice immediately (show the label where possible)

Environmental Protection:

DO NOT CONTAMINATE WATER WITH THE PRODUCT OR ITS CONTAINER

Do not clean application equipment near water

Avoid contamination via drains from farmyards

Storage and Disposal:

STORE BETWEEN 4-8°C IN A DRY PLACE

OPEN THE CONTAINER ONLY AS DIRECTED

KEEP IN ORIGINAL CONTAINER tightly closed, in a safe place

KEEP AWAY FROM FOOD, DRINK AND ANIMAL FEEDINGSTUFFS

KEEP OUT OF REACH OF CHILDREN

EMPTY CONTAINER COMPLETELY and dispose of safely

DO NOT RINSE OUT THE CONTAINER

DO NOT RE-USE CONTAINER FOR ANY OTHER PURPOSE

THIS MATERIAL AND ITS CONTAINER must be disposed of safely

DISPOSE OF CONTENTS/CONTAINER to a licensed hazardous-waste disposal contractor or collection site

Treated Seed:

WEAR SUITABLE PROTECTIVE CLOTHING (COVERALLS), SUITABLE PROTECTIVE GLOVES AND SUITABLE RESPIRATORY PROTECTIVE EQUIPMENT* when bagging treated seed. *Disposable filtering facepiece respirator to at least EN149 FFP3 or equivalent.

DO NOT HANDLE seed unnecessarily

DO NOT USE TREATED SEED as food or feed

DO NOT RE-USE SACKS OR CONTAINERS THAT HAVE BEEN USED FOR TREATED SEED for food or feed

KEEP TREATED SEED SECURE from people, domestic stock/pets and wildlife at all times during storage and use

WASH HANDS AND EXPOSED SKIN before meals and after work

TO PROTECT BIRDS/WILD ANIMALS, treated seed should not be left on the soil surface; bury or remove spillages

DO NOT APPLY TREATED SEED FROM THE AIR

UNUSED, TREATED SEED must be disposed of safely

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

To avoid risks to man and the environment, comply with the instructions for use.

Treated seed bag label

This seed has been treated with Cerall® (M19001)
Seed treatment for seed-borne disease on wheat, rye and triticale

Cerall® contains *Pseudomonas chlororaphis* MA 342: may produce an allergic reaction; micro-organisms may have the potential to provoke sensitising reactions

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WEAR SUITABLE PROTECTIVE CLOTHING (COVERALLS), SUITABLE PROTECTIVE GLOVES AND SUITABLE RESPIRATORY PROTECTIVE EQUIPMENT* when handling treated seed. *Disposable filtering facepiece respirator to at least EN149 FFP3 or equivalent.

DO NOT HANDLE seed unnecessarily
DO NOT USE TREATED SEED as food or feed
DO NOT RE-USE SACKS OR CONTAINERS THAT HAVE BEEN USED FOR TREATED SEED for food or feed
KEEP TREATED SEED SECURE from people, domestic stock/pets and wildlife at all times during storage and use
WASH HANDS AND EXPOSED SKIN before meals and after work
TO PROTECT BIRDS/WILD ANIMALS, treated seed should not be left on the soil surface; bury or remove spillages
DO NOT APPLY TREATED SEED FROM THE AIR
UNUSED, TREATED SEED MUST BE DISPOSED OF AS HAZARDOUS WASTE

Storage:

Store between 4-8°C in a dry place.
The product must be used within 12 weeks of the date of manufacture, according to the 'Use By' date written on the individual product package.
The 'Use By' date is only valid for packages with unbroken seals. In order to keep the product free from contaminants, the equipment for mixing or pumping should be sterilised with ethanol before it is dipped into the product. Storage of partly emptied packages should be avoided, but if this happens, they should be stored under refrigerated conditions, in the original package and used as soon as possible.
Do not keep in domestic refrigerators.
Do not freeze.

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.

Cerall® is a biofungicide containing *Pseudomonas chlororaphis* strain MA 342, a naturally occurring bacterium, that has not been genetically modified.

Problems/pests controlled:

Cerall® substantially reduces bunt (*Tilletia tritici*); because of variations in the level of control achieved in different situations, it is not advisable to use Cerall® on seed intended for replication.

Cerall® controls seedling blights caused by *Septoria nodorum* and *Fusarium* spp.

Mode of action: The bacteria partially cover the seed surface during treatment. During germination the bacteria multiply on the seeds and are present on the plant until the five-leaf stage, thereby providing long-term protection.

Rate of use: The recommended dose of Cerall® is 10 ml product/kg seed (10 l product/tonne seed).

Timing and number of applications: One per batch of seed, before drilling.

Application: Cerall® can be applied in all commonly used seed treatment machines designed for continuous liquid treatment. The seed treatment machine should be carefully cleaned by rinsing with hot water and detergent, flushed with hot water, and calibrated, before application of Cerall® takes place. The product should be mixed thoroughly before and during use. Cerall® can be used at temperatures down to +1°C.

Cleaning of application equipment: The machine should be flushed with hot water and detergent, followed by a further rinse with hot water. The flush water should be disposed of safely. Flush water that contains residues from pesticides other than Cerall® should be handled as stated on the relevant MSDS.

Compatibility: Cerall® should not be mixed with any other seed treatment product.

Storage of treated seed: Seed treated with Cerall® should not be stored for more than one year before use.

Drilling of treated seed: Seed treated with Cerall® may affect the flow rate of seed through drills. Check the calibration of seed drills before drilling treated seed. Store treated seeds in a cool, dry, well-ventilated place. Cerall®-treated seed does not require any special sowing conditions or drilling depth.

Environmental conditions: Weather, soil, variety, resistance, application technology and other factors may affect the efficacy of the product.

Cerall® is a registered trademark of Koppert BV

BATCH No: see top

USE BY: see top

NET CONTENT: 200 l

KOPPERT BV guarantees that Cerall® is fit for purpose and conforms to the specifications stated on this label. KOPPERT BV gives no warranty, express or implied, including the warranties of commercially acceptable quality and/or fitness for any particular purpose concerning this material, other than those which are stated on this label, and will not be liable for any direct or indirect damage which results from incorrect use of the product or non-compliance with the directions of this label.