

SECTION 1: Identification of the substance/mixture and of the company/undertaking

1.1. Product identifier

Product form : Mixture
Product name. : Cerall

1.2. Relevant identified uses of the substance or mixture and uses advised against

1.2.1. Relevant identified uses

Industrial/Professional use spec. : For professional use only
Use of the substance/mixture : Biological Fungicide, Flowable suspension for seed treatment [FS]

1.2.2. Uses advised against

No additional information available

1.3. Details of the supplier of the safety data sheet

Lantmännen BioAgri AB
Fågelbacksvägen 3
SE-756 51 Uppsala, SWEDEN
T + 46 (0)18 67 49 00
info@bioagri.se

1.4. Emergency telephone number

Emergency number : + 46 105 561 875

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

Classification according to Regulation (EC) No. 1272/2008 [CLP]

Not classified

Classification according to Directive 67/548/EEC or 1999/45/EC

Not classified

2.2. Label elements

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

EUH phrases : EUH401 - To avoid risks to human health and the environment, comply with the instructions for use.

Labelling according to Regulation (EU) No. 547/2011

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.

Additional labelling elements for plant protection products containing micro-organisms

Micro-organisms may have the potential to provoke sensitising reactions. Wear suitable protective gloves and suitable respiratory protective equipment * when handling the concentrate or applying the product.

*Disposable filtering facepiece respirator to at least EN149 FFP3 or equivalent.

2.3. Other hazards

No additional information available

SECTION 3: Composition/information on ingredients

3.1. Substances

Not applicable

3.2. Mixture

Name	Product identifier	Concentration in Colony Forming Units per unit volume	Classification according to Regulation (EC) No. 1272/2008 [CLP]
<i>Pseudomonas chlororaphis</i> MA 342	No data available.	10 ⁹ -10 ¹⁰ CFU/mL	Not classified

SECTION 4: First aid measures

4.1. Description of first aid measures

First-aid measures after inhalation : If breathing is difficult, remove to fresh air and keep at rest in a position comfortable for breathing. Get medical advice/attention if you feel unwell.

First-aid measures after skin contact : If irritation occurs, flush skin with plenty of water. Get medical attention if irritation persists.

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according to Regulation (EC) No. 453/2010

First-aid measures after eye contact	: In case of contact, immediately flush eyes with plenty of water. Remove contact lenses, if worn. If irritation persists, get medical attention.
First-aid measures after ingestion	: If swallowed, do NOT induce vomiting unless directed to do so by medical personnel. Never give anything by mouth to an unconscious person. Get medical advice/attention if you feel unwell.

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

Symptoms/injuries	: Micro-organisms may have the potential to provoke sensitising reactions.
Symptoms/injuries after inhalation	: See above.
Symptoms/injuries after skin contact	: See above.
Symptoms/injuries after eye contact	: See above.
Symptoms/injuries after ingestion	: See above.

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

Symptoms may not appear immediately. In case of accident or if you feel unwell, seek medical advice immediately (show the label or SDS where possible).

SECTION 5: Firefighting measures

5.1. Extinguishing media

Suitable extinguishing media	: Carbon dioxide, alcohol foam, dry chemical powder.
Unsuitable extinguishing media	: Not available.

5.2. Special hazards arising from the substance or mixture

Reactivity	: No dangerous reaction known under conditions of normal use.
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5.3. Advice for firefighters

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

6.1.1. For non-emergency personnel

Protective equipment	: Use personal protection recommended in Section 8. Isolate the hazard area and deny entry to unnecessary and unprotected personnel.
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6.1.2. For emergency responders

Protective equipment	: Equip cleanup crew with proper protection.
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6.2. Environmental precautions

Keep out of drains, sewers, ditches, and waterways. Minimize use of water to prevent environmental contamination. Handle as organic waste.

6.3. Methods and material for containment and cleaning up

For containment	: Contain and/or absorb spill with inert material (e.g. sand, vermiculite), then place in a suitable container. Do not flush to sewer or allow to enter waterways. Use appropriate Personal Protective Equipment (PPE).
Methods for cleaning up	: Soak into absorbent material. Thoroughly wash the area with water after a spill or leak.

6.4. Reference to other sections

See section 8 for further information on protective clothing and equipment and section 13 for advice on waste disposal.

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Precautions for safe handling	: Avoid contact with skin and eyes. Avoid breathing vapour or mist. Do not swallow. Handle and open container with care. When using do not eat, drink or smoke. When applying the product use disposable filtering facepiece respirator to at least EN149 FFP3 or equivalent.
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7.2. Conditions for safe storage, including any incompatibilities

Storage conditions	: Keep out of the reach of children. Store the container closed under cool (+4°C to +8°C) and well ventilated conditions and use the product before the best date shown at a separate label at the package.
Incompatible materials	: None known.

7.3. Specific end use(s)

Cerall is a biological fungicide for seed-dressing against seedborne fungal disease.

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

No additional information available

8.2. Exposure controls

Appropriate engineering controls	: Use ventilation adequate to keep exposures (airborne levels of dust, fume, vapor, etc.) below recommended exposure limits.
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Personal protective equipment	: Avoid all unnecessary exposure.
Hand protection	: Wear suitable protective gloves.
Eye protection	: Safety glasses or goggles are recommended when using product.
Skin and body protection	: Wear suitable respiratory protective equipment.
Environmental exposure controls	: Maintain levels below Community environmental protection thresholds.
Other information	: Do not eat, smoke or drink where material is handled, processed or stored. Wash hands carefully before eating or smoking. Handle according to established industrial hygiene and safety practices.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state	: Liquid
Appearance	: Blue liquid.
Colour	: Blue.
Odour	: Weekly sweet with a scent of butyric acid.
Odour threshold	: No data available.
pH	: 6.29
Relative evaporation rate (butylacetate=1)	: No data available.
Melting point	: < 0 °C
Freezing point	: No data available.
Boiling point	: No data available.
Flash point	: ≤ 150 °C
Self ignition temperature	: No data available.
Decomposition temperature	: No data available.
Flammability (solid, gas)	: Non flammable.
Vapour pressure	: No data available.
Relative vapour density at 20 °C	: No data available.
Relative density	: 1020 g/L
Solubility	: Not soluble in water.
Log Pow	: No data available.
Log Kow	: No data available.
Viscosity, kinematic	: 1.204 cSt at 20°C (Method OECD 114) 0.780 cSt at 40°C (Method OECD 114).
Viscosity, dynamic	: No data available.
Explosive properties	: No explosive properties.
Oxidising properties	: No oxidising properties.
Explosive limits	: No data available.

9.2. Other information

No additional information available.

SECTION 10: Stability and reactivity

10.1. Reactivity

No dangerous reaction known under conditions of normal use.

10.2. Chemical stability

Stable under normal conditions.

10.3. Possibility of hazardous reactions

No dangerous reaction known under conditions of normal use.

10.4. Conditions to avoid

Heat. Incompatible materials.

10.5. Incompatible materials

Strong oxidizers.

10.6. Hazardous decomposition products

May include, and are not limited to: oxides of carbon.

SECTION 11: Toxicological information

11.1. Information on toxicological effects

Acute toxicity : Based on available data, the classification criteria are not met.

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Summary of acute toxicity studies used for the evaluation of <i>P. chlororaphis</i> strain MA 342		
Study type	Test item	Findings
Acute oral toxicity (rats)	<i>P. chlororaphis</i> MA 342	LD ₅₀ > 2 × 10 ¹⁰ CFU/kg bw
Acute inhalation /pathogenicity (rats)	<i>P. chlororaphis</i> MA 342	LC ₅₀ > 1 × 10 ⁸ CFU/animal
Acute inhalation /pathogenicity (rats)	Cedomon (<i>P. chlororaphis</i> MA 342 bacterial suspension in carrier)	LC ₅₀ > 5 × 10 ⁵ CFU MA 342/animal

Skin corrosion/irritation : Based on available data, the classification criteria are not met.

Summary of Dermal irritation studies used for the evaluation of <i>P. chlororaphis</i> strain MA 342		
Study type	Test item	Findings
Dermal irritation (rabbits)	<i>P. chlororaphis</i> MA 342	Non-irritating

Serious eye damage/irritation : Based on available data, the classification criteria are not met.

Summary of eye irritation/corrosion studies used for the evaluation of <i>P. chlororaphis</i> strain MA 342		
Study type	Test item	Findings
Eye irritation/corrosion (rabbits)	<i>P. chlororaphis</i> MA 342	Non-irritating

Respiratory or skin sensitisation : Based on available data, the classification criteria are not met.

Summary of skin sensitisation studies used for the evaluation of <i>P. chlororaphis</i> strain MA 342		
Study type	Test item	Findings
Skin sensitisation Buehler Test (Guinea pigs)	<i>P. chlororaphis</i> MA 342	Non-sensitiser

Germ cell mutagenicity : Based on available data, the classification criteria are not met.

Carcinogenicity : Based on available data, the classification criteria are not met.

Reproductive toxicity : Based on available data, the classification criteria are not met.

Specific target organ toxicity (single exposure) : Based on available data, the classification criteria are not met.

Specific target organ toxicity (repeated exposure) : Based on available data, the classification criteria are not met.

Aspiration hazard : Based on available data, the classification criteria are not met.

Potential Adverse human health effects and symptoms : Based on available data, the classification criteria are not met.

SECTION 12: Ecological information

12.1. Toxicity

Ecology - general : May cause long-term adverse effects in the aquatic environment.

Ecotoxicological endpoints of <i>P. chlororaphis</i> MA 342 for mammals		
Study type	Test item	Findings
<i>P. chlororaphis</i> MA 342	Rat	No signs of pathogenicity and toxicity upon a dose of 2 × 10 ¹⁰ CFU/kg bw

Ecotoxicological endpoints of <i>P. chlororaphis</i> MA 342 for fish		
Study type	Test item	Findings
<i>P. chlororaphis</i>	<i>Oncorhynchus mykiss</i>	96 hour LD ₅₀ > 20 × 10 ¹⁰ CFU/L; NOEC = 8 × 10 ¹⁰ CFU/L

12.2. Persistence and degradability

Cerall	
Persistence and degradability	Not established.
Biodegradation	> 90 % after 21 days according to the OECD guidelines (CEC test)

12.3. Bioaccumulative potential

Cerall	
Bioaccumulative potential	Not established.

12.4. Mobility in soil

No additional information available

12.5. Results of PBT and vPvB assessment

No additional information available

12.6. Other adverse effects

No additional information available

SECTION 13: Disposal considerations

13.1. Waste treatment methods

Waste disposal recommendations : This material must be disposed of in accordance with all local, state, provincial, and federal regulations. The generation of waste should be avoided or minimized wherever possible.

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according to Regulation (EC) No. 453/2010

SECTION 14: Transport information

In accordance with ADR / RID / ADNR / IMDG / ICAO / IATA

14.1. UN number

No dangerous good in sense of transport regulations.

14.2. UN proper shipping name

Not applicable

14.3. Transport hazard class(es)

Not applicable

14.4. Packing group

Not applicable

14.5. Environmental hazards

Other information : No supplementary information available.

14.6. Special precautions for user

Special transport precautions : Do not handle until all safety precautions have been read and understood.

14.6.1. Overland transport

No additional information available

14.6.2. Transport by sea

No additional information available

14.6.3. Air transport

No additional information available

14.7. Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code

Not applicable

SECTION 15: Regulatory information

15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture

15.1.1. EU-Regulations

No REACH Annex XVII restrictions

Regulated under (EC) No 1107/2009

15.1.2. National regulations

This product is registered under the corresponding National legislation for plant protection products Sweden, Finland, Denmark, Austria, Switzerland, UK, France, Belgium, Netherlands, Lithuania, Spain.

15.2. Chemical safety assessment

No chemical safety assessment has been carried out

SECTION 16: Other information

Indication of changes: None.

Revision - See : None.

Data sources : REGULATION (EC) No 1272/2008 OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL of 16 December 2008 on classification, labelling and packaging of substances and mixtures, amending and repealing Directives 67/548/EEC and 1999/45/EC, and amending Regulation (EC) No 1907/2006.

Other information : None.

SDS EU (REACH Annex II)

This information is based on our current knowledge and is intended to describe the product for the purposes of health, safety and environmental requirements only. It should not therefore be construed as guaranteeing any specific property of the product.