

SAFETY DATA SHEET



Lumiscend Pro

Version 2.0 Revision Date: 04/20/2022 SDS Number: 750075100096 Date of last issue: 02/24/2022
Date of first issue: 02/24/2022

Corteva Agriscience™ encourages you and expects you to read and understand the entire SDS as there is important information throughout the document. This SDS provides users with information relating to the protection of human health and safety at the workplace, protection of the environment and supports emergency response. Product users and applicators should primarily refer to the product label attached to or accompanying the product container. This Safety Data Sheet adheres to the standards and regulatory requirements of Canada and may not meet the regulatory requirements in other countries.

SECTION 1. IDENTIFICATION

Product name : Lumiscend Pro
Other means of identification : No data available

Manufacturer or supplier's details

COMPANY IDENTIFICATION

Manufacturer/importer : CORTEVA AGRISCIENCE CANADA COMPANY
#2450, 215 - 2ND STREET S.W.
CALGARY AB, T2P 1M4
CANADA

Customer Information Number : 800-667-3852
E-mail address : solutions@corteva.com

Emergency telephone number : CANUTEC
1-888-226-8832

Recommended use of the chemical and restrictions on use

Recommended use : Fungicide
Seed Treatment


SECTION 2. HAZARDS IDENTIFICATION

GHS classification in accordance with the Hazardous Products Regulations

Acute toxicity (Oral) : Category 4

Acute toxicity (Inhalation) : Category 4

GHS label elements

Hazard pictograms : 

Signal word : Warning

Hazard statements : H302 + H332 Harmful if swallowed or if inhaled.

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Precautionary statements : **Prevention:**
P261 Avoid breathing dust/ fume/ gas/ mist/ vapours/ spray.
P264 Wash skin thoroughly after handling.
P270 Do not eat, drink or smoke when using this product.
P271 Use only outdoors or in a well-ventilated area.

Response:
P301 + P312 + P330 IF SWALLOWED: Call a POISON CENTER/ doctor if you feel unwell. Rinse mouth.
P304 + P340 + P312 IF INHALED: Remove person to fresh air and keep comfortable for breathing. Call a POISON CENTER/ doctor if you feel unwell.

Disposal:
P501 Dispose of contents/ container to an approved waste disposal plant.

Other hazards
None known.

SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS

Substance / Mixture : Mixture

Components

Chemical name	Common Name/Synonym	CAS-No.	Concentration (% w/w)
Ethaboxam [ISO]	Ethaboxam [ISO]	162650-77-3	5.46
Inpyrfluxam	Inpyrfluxam	1352994-67-2	3.71
metalaxyl (ISO)	metalaxyl (ISO)	57837-19-1	2.98
Balance	Balance	Not Assigned	87.85

* Actual concentration or concentration range is withheld as a trade secret

SECTION 4. FIRST AID MEASURES

If inhaled : 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 center or doctor for treatment advice.

In case of skin contact : Take off contaminated clothing. Wash skin with soap and plenty of water for 15-20 minutes. Call a poison control center or doctor for treatment advice.

In case of eye contact : Hold eye 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 eye.
Call a poison control center or doctor for treatment advice.

If swallowed : Call a poison control center or doctor for treatment advice.
Have person sip a glass of water if able to swallow.
DO NOT induce vomiting unless directed to do so by a physician or poison control center.
Do not give anything by mouth to an unconscious person.

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Most important symptoms and effects, both acute and delayed : None known.
Notes to physician : Treatment according to symptoms.

SECTION 5. FIREFIGHTING MEASURES

Suitable extinguishing media : Water spray
Alcohol-resistant foam

Unsuitable extinguishing media : None known.

Specific hazards during fire-fighting : Exposure to combustion products may be a hazard to health. Do not allow run-off from fire fighting to enter drains or water courses.

Hazardous combustion products : During a fire, smoke may contain the original material in addition to combustion products of varying composition which may be toxic and/or irritating.
Combustion products may include and are not limited to:
Carbon oxides
Hydrogen chloride gas
Sulphur oxides
Nitrogen oxides (NOx)

Specific extinguishing methods : Remove undamaged containers from fire area if it is safe to do so.
Evacuate area.
Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.
Use water spray to cool unopened containers.

Further information : Collect contaminated fire extinguishing water separately. This must not be discharged into drains.
Fire residues and contaminated fire extinguishing water must be disposed of in accordance with local regulations.

Special protective equipment for firefighters : Wear self-contained breathing apparatus for firefighting if necessary.
Use personal protective equipment.

SECTION 6. ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures : Use appropriate safety equipment. For additional information, refer to Section 8, Exposure Controls and Personal Protection.

Environmental precautions : If the product contaminates rivers and lakes or drains inform respective authorities.
Discharge into the environment must be avoided.
Prevent further leakage or spillage if safe to do so.
Prevent spreading over a wide area (e.g. by containment or oil barriers).
Retain and dispose of contaminated wash water.
Local authorities should be advised if significant spillages cannot be contained.
Prevent from entering into soil, ditches, sewers, undewater. See Section 12, Ecological Information.

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Methods and materials for containment and cleaning up : Clean up remaining materials from spill with suitable absorbent.
Local or national regulations may apply to releases and disposal of this material, as well as those materials and items employed in.
For large spills, provide dyking or other appropriate containment to keep material from spreading. If dyked material can be pumped,
Recovered material should be stored in a vented container. The vent must prevent the ingress of water as further reaction with spilled materials can take place which could lead to over-pressurization of the container.
Keep in suitable, closed containers for disposal.
Wipe up with absorbent material (e.g. cloth, fleece).
Soak up with inert absorbent material (e.g. sand, silica gel, acid binder, universal binder, sawdust).
See Section 13, Disposal Considerations, for additional information.

SECTION 7. HANDLING AND STORAGE

Advice on safe handling : Do not breathe vapours/dust.
Do not smoke.
Handle in accordance with good industrial hygiene and safety practice.
Smoking, eating and drinking should be prohibited in the application area.
Take care to prevent spills, waste and minimize release to the environment.
Use appropriate safety equipment. For additional information, refer to Section 8, Exposure Controls and Personal Protection.

Conditions for safe storage : Store in a closed container.
Containers which are opened must be carefully resealed and kept upright to prevent leakage.
Keep in properly labelled containers.
Store in accordance with the particular national regulations.

Materials to avoid : Strong oxidizing agents

Packaging material : Unsuitable material: None known.

SECTION 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Components with workplace control parameters

Contains no substances with occupational exposure limit values.

Engineering measures : Use local exhaust ventilation, or other engineering controls to maintain airborne levels below exposure limit requirements or guidelines. If there are no applicable exposure limit requirements or guidelines, general ventilation should be sufficient for most operations.
Local exhaust ventilation may be necessary for some operations.

Personal protective equipment

Respiratory protection : Local exhaust ventilation may be necessary for some operations.

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Respiratory protection is required when engineering or administrative control measures are not feasible and inhalation exposure is reasonably likely.

Hand protection

Remarks : In this case wear chemical-resistant gloves, such as butyl rubber, natural rubber, neoprene rubber, or nitrile rubber, all greater than or equal to 14 mils. Viton.

Eye protection : Wear protective eyewear to prevent contact with this substance.

Skin and body protection : Avoid all skin contact. Selection of specific personal protective equipment such as long sleeves, safety glasses with side shields, face shield, safety shoes, boots, apron, or full body suit will depend on the task.

SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance : Liquid.

Colour : off-white

Odour : paint

Odour Threshold : No data available

pH : 6.5 - 8.0

Melting point/range : Not applicable

Freezing point : not determined

Boiling point/boiling range : not determined

Flash point : Method: closed cup
not determined

Evaporation rate : not determined

Flammability (solid, gas) : No data available

Upper explosion limit / Upper flammability limit : not determined

Lower explosion limit / Lower flammability limit : not determined

Vapour pressure : not determined

Relative vapour density : not determined

Density : 1.063 g/cm³ (20 °C)

Solubility(ies)
Water solubility : miscible

Auto-ignition temperature : not determined

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Viscosity
Viscosity, dynamic : 130 cP (20 °C)

Explosive properties : No data available

Oxidizing properties : No data available

SECTION 10. STABILITY AND REACTIVITY

Reactivity : Not classified as a reactivity hazard.

Chemical stability : No decomposition if stored and applied as directed.
Stable under normal conditions.

Possibility of hazardous reac- : Stable under recommended storage conditions.
tions : No hazards to be specially mentioned.
None known.

Conditions to avoid : None known.

Incompatible materials : None.

Hazardous decomposition : Decomposition products depend upon temperature, air supply
products and the presence of other materials.
Decomposition products can include and are not limited to:
Carbon oxides
Hydrogen chloride gas
Sulphur oxides
Nitrogen oxides (NOx)

SECTION 11. TOXICOLOGICAL INFORMATION

Acute toxicity

Product:

Acute oral toxicity : LD50 (Rat): 1,750 mg/kg

Acute inhalation toxicity : LC50 (Rat): > 2.10 mg/l
Exposure time: 4 h
Test atmosphere: dust/mist

Acute dermal toxicity : LD50 (Rat): > 5,000 mg/kg

Components:

metalaxyl (ISO):

Acute oral toxicity : LD50 (Rat): 669 mg/kg

Acute inhalation toxicity : Remarks: Brief exposure to dust is not likely to cause adverse
effects.
Dust may cause irritation to upper respiratory tract (nose and
throat).

LC50 (Rat): > 3.6 mg/l
Exposure time: 4 h
Test atmosphere: dust/mist
Assessment: The substance or mixture has no acute inhala-
tion toxicity

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Acute dermal toxicity : LD50 (Rabbit): > 6,000 mg/kg

Skin corrosion/irritation**Product:**

Species : Rabbit

Components:**metalaxyl (ISO):**

Result : No skin irritation

Serious eye damage/eye irritation**Product:**

Species : Rabbit

Components:**metalaxyl (ISO):**

Result : No eye irritation

Respiratory or skin sensitisation**Product:**

Test Type : Local lymph node assay (LLNA)
Species : Mouse

Components:**metalaxyl (ISO):**

Assessment : Does not cause skin sensitisation.
Remarks : Did not cause allergic skin reactions when tested in guinea pigs.

Remarks : For respiratory sensitization:
No relevant data found.

Germ cell mutagenicity**Components:****Ethaboxam [ISO]:**

Germ cell mutagenicity -
Assessment : In vitro tests did not show genotoxic effects

metalaxyl (ISO):

Germ cell mutagenicity -
Assessment : In vitro genetic toxicity studies were negative., Animal genetic toxicity studies were negative.

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Carcinogenicity**Components:****Ethaboxam [ISO]:**

Carcinogenicity - Assessment : Did not cause cancer in laboratory animals.

metalaxyl (ISO):

Carcinogenicity - Assessment : Did not cause cancer in laboratory animals.

Reproductive toxicity**Components:****Ethaboxam [ISO]:**

Reproductive toxicity - Assessment : Development effects were not observed in laboratory animals., In animal studies, has been shown to interfere with fertility.
Did not cause birth defects in laboratory animals.

metalaxyl (ISO):

Reproductive toxicity - Assessment : In animal studies, did not interfere with reproduction., In animal studies, did not interfere with fertility.
Did not cause birth defects in laboratory animals.

STOT - single exposure**Components:****Ethaboxam [ISO]:**

Assessment : Available data are inadequate to determine single exposure specific target organ toxicity.

metalaxyl (ISO):

Assessment : Evaluation of available data suggests that this material is not an STOT-SE toxicant.

Repeated dose toxicity**Components:****Ethaboxam [ISO]:**

Remarks : No relevant data found.

metalaxyl (ISO):

Remarks : Based on available data, repeated exposures are not anticipated to cause significant adverse effects.

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Aspiration toxicity**Components:****Ethaboxam [ISO]:**

Based on physical properties, not likely to be an aspiration hazard.

metalaxyl (ISO):

Based on physical properties, not likely to be an aspiration hazard.

SECTION 12. ECOLOGICAL INFORMATION**Ecotoxicity****Components:****Ethaboxam [ISO]:**

Toxicity to fish	:	LC50 (Fathead minnow): > 4.6 mg/l Exposure time: 96 h
		LC50 (Rainbow trout (<i>Oncorhynchus mykiss</i>)): 2.3 mg/l Exposure time: 96 h
		LC50 (Sheepshead minnow (<i>Cyprinodon variegatus</i>)): > 3.1 mg/l Exposure time: 96 h
		LC50 (Fish): 0.42 mg/l Exposure time: 96 h
Toxicity to daphnia and other aquatic invertebrates	:	EC50 (<i>Daphnia magna</i>): 0.35 mg/l Exposure time: 48 h
Toxicity to algae/aquatic plants	:	EC50 (green algae): 3.6 mg/l Exposure time: 96 h
		EC50 (algae): 0.38 mg/l Exposure time: 96 h
M-Factor (Acute aquatic toxicity)	:	1
M-Factor (Chronic aquatic toxicity)	:	1
Toxicity to terrestrial organisms	:	oral LD50 (<i>Colinus virginianus</i> (Bobwhite quail)): > 2,000 mg/kg
		oral LD50 (<i>Poephila guttata</i> (zebra finch)): > 2,000 mg/kg
		dietary LC50 (<i>Colinus virginianus</i> (Bobwhite quail)): 5,000 ppm
		dietary LC50 (<i>Anas platyrhynchos</i> (Mallard duck)): 5,620 ppm

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Inpyrfluxam:

- Toxicity to fish : LC50 (Rainbow trout (*Oncorhynchus mykiss*)): 0.031 mg/l
Exposure time: 96 h
- Toxicity to daphnia and other aquatic invertebrates : EC50 (*Daphnia magna* (Water flea)): 1.1 mg/l
Exposure time: 48 h
- Toxicity to algae/aquatic plants : EC50 (*Pseudokirchneriella subcapitata* (green algae)): 23 mg/l
Exposure time: 72 h
- M-Factor (Acute aquatic toxicity) : 10
- M-Factor (Chronic aquatic toxicity) : 10

metalaxyl (ISO):

- Toxicity to fish : LC50 (*Oncorhynchus mykiss* (rainbow trout)): > 100 mg/l
Exposure time: 96 h
- Toxicity to daphnia and other aquatic invertebrates : LC50 (*Daphnia magna* (Water flea)): > 28 mg/l
Exposure time: 48 h
- EC50 (eastern oyster (*Crassostrea virginica*)): 4.6 mg/l
Exposure time: 96 h
- Toxicity to algae/aquatic plants : EC50 (Algae): 33 mg/l
Exposure time: 120 h
- Toxicity to soil dwelling organisms : LC50 (*Eisenia fetida* (earthworms)): > 1,000 mg/kg
Exposure time: 14 d
- Toxicity to terrestrial organisms : Remarks: Material is slightly toxic to birds on an acute basis (LD50 between 501 and 2000 mg/kg)., Material is practically non-toxic to birds on a dietary basis (LC50 > 5000 ppm).
- oral LD50 (*Coturnix japonica* (Japanese quail)): 923 mg/kg bodyweight.
- oral LD50 (*Anas platyrhynchos* (Mallard duck)): 1466 mg/kg bodyweight.
- dietary LC50 (*Anas platyrhynchos* (Mallard duck)): > 10000 mg/kg diet.
- oral LD50 (*Apis mellifera* (bees)): 269.3 µg/bee
- contact LD50 (*Apis mellifera* (bees)): > 200 µg/bee

Ecotoxicology Assessment

- Acute aquatic toxicity : Toxic to aquatic life.
- Chronic aquatic toxicity : Toxic to aquatic life with long lasting effects.

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Persistence and degradability**Components:****metalaxyl (ISO):**

Biodegradability : Result: Not readily biodegradable.
Remarks: Degradation is expected in the soil environment within days to weeks.
Based on stringent OECD test guidelines, this material cannot be considered as readily biodegradable; however, these results do not necessarily mean that the material is not biodegradable under environmental conditions.

Bioaccumulative potential**Components:****metalaxyl (ISO):**

Partition coefficient: n-octanol/water : log Pow: 1.75 (25 °C)
Remarks: Bioconcentration potential is low (BCF < 100 or Log Pow < 3).

Balance:

Partition coefficient: n-octanol/water : Remarks: No relevant data found.

Mobility in soil**Components:****metalaxyl (ISO):**

Distribution among environmental compartments : Koc: 29.6 - 283.8
Remarks: Potential for mobility in soil is very high (Koc between 0 and 50).

Stability in soil :

Balance:

Distribution among environmental compartments : Remarks: No relevant data found.

Other adverse effects**Components:****metalaxyl (ISO):**

Results of PBT and vPvB assessment : This substance is not considered to be persistent, bioaccumulating and toxic (PBT). This substance is not considered to be very persistent and very bioaccumulating (vPvB).

Ozone-Depletion Potential : Remarks: This substance is not on the Montreal Protocol list of substances that deplete the ozone layer.

Balance:

Results of PBT and vPvB assessment : This substance has not been assessed for persistence, bioaccumulation and toxicity (PBT).

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Ozone-Depletion Potential : Remarks: This substance is not on the Montreal Protocol list of substances that deplete the ozone layer.

SECTION 13. DISPOSAL CONSIDERATIONS

Disposal methods

Waste from residues : If wastes and/or containers cannot be disposed of according to the product label directions, disposal of this material must be in accordance with your local or area regulatory authorities. This information presented below only applies to the material as supplied. The identification based on characteristic(s) or listing may not apply if the material has been used or otherwise contaminated. It is the responsibility of the waste generator to determine the toxicity and physical properties of the material generated to determine the proper waste identification and disposal methods in compliance with applicable regulations. If the material as supplied becomes a waste, follow all applicable regional, national and local laws.

SECTION 14. TRANSPORT INFORMATION

International Regulations

UNRTDG

UN number : UN 3082
Proper shipping name : ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (Ethaboxam, Inpyrfluxam)
Class : 9
Packing group : III
Labels : 9

IATA-DGR

UN/ID No. : UN 3082
Proper shipping name : Environmentally hazardous substance, liquid, n.o.s. (Ethaboxam, Inpyrfluxam)
Class : 9
Packing group : III
Labels : Miscellaneous
Packing instruction (cargo aircraft) : 964
Packing instruction (passenger aircraft) : 964

IMDG-Code

UN number : UN 3082
Proper shipping name : ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (Ethaboxam, Inpyrfluxam)
Class : 9
Packing group : III
Labels : 9
EmS Code : F-A, S-F
Marine pollutant : yes
Remarks : Stowage category A

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

Not applicable for product as supplied.

National Regulations

TDG

UN number : UN 3082
Proper shipping name : ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S.
(Ethaboxam, Inpyrfluxam)
Class : 9
Packing group : III
Labels : 9
ERG Code : 171
Marine pollutant : yes(Ethaboxam, Inpyrfluxam)

Further information

Marine Pollutants assigned UN number 3077 and 3082 in single or combination packaging containing a net quantity per single or inner packaging of 5 L or less for liquids or having a net mass per single or inner packaging of 5 KG or less for solids may be transported as non-dangerous goods as provided in section 2.10.2.7 of IMDG code, IATA Special provision A197, and ADR/RID special provision 375.

For Canadian Ground transportation TDG Exemption: 1.45.1 Marine Pollutants (Part 3, Documentation, and Part 4, Dangerous Goods Safety Marks, do not apply if they are in transport solely on land by road vehicle or railway vehicle).

Special precautions for user

The transport classification(s) provided herein are for informational purposes only, and solely based upon the properties of the unpackaged material as it is described within this Safety Data Sheet. Transportation classifications may vary by mode of transportation, package sizes, and variations in regional or country regulations.

SECTION 15. REGULATORY INFORMATION

The components of this product are reported in the following inventories:

DSL : This product contains components that are not listed on the Canadian DSL nor NDSL.

Pest Control Products Act (PCPA) Registration Number : 34421

Read the PCPA label, authorized under the Pest Control Products Act, prior to using or handling this pest control product.

This chemical is a pest control product registered by Health Canada Pest Management Regulatory Agency and is subject to certain labelling requirements under the Pest Control Products Act (PCPA). There are Canada-specific environmental requirements for handling, use, and disposal of this pest control product that are indicated on the label. These requirements differ from the classification criteria and hazard information required for GHS-consistent safety data sheets. Following is the hazard information required on the pest control products label:

PCPA Label Hazard Communications:

Read the label and booklet before using. Keep out of reach of children.

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The information provided in this 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.

CA / 6N