according to the Hazardous Products Regulations



LONTREL™ XC Herbicide

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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 : LONTREL™ XC Herbicide

Other means of identification : No data available

Manufacturer or supplier's details

COMPANY IDENTIFICATION

Manufacturer/importer : CORTEVA AGRISCIENCE CANADA COMPANY

SUITE 240, 115 QUARRY PARK RD. SE

CALGARY AB, T2C 5G9

CANADA

Customer Information

Number

: 800-667-3852

E-mail address : solutions@corteva.com

Emergency telephone

number

Corteva Canada Solutions: 1-800-667-3852

Recommended use of the chemical and restrictions on use
Recommended use : End use herbicide product

SECTION 2. HAZARDS IDENTIFICATION

GHS classification in accordance with the Hazardous Products Regulations

Not a hazardous substance or mixture.

GHS label elements

No hazard pictogram, no signal word, no hazard statement(s), no precautionary statement(s) required

Other hazards

None known.

SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS

Substance / Mixture : Mixture

Components

Componente			
Chemical name	Common Name/Synonym	CAS-No.	Concentration (% w/w)
	Clopyralid-dime- thylammonium salt	1096483-37-2	60.22
Balance	Balance	Not Assigned	39.78

No hazardous ingredients

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. Rinse skin immediately with

plenty of water for 15-20 minutes. Call a poison control center

or doctor for treatment advice.

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In case of eye contact Hold eyes 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 eyes. Call a poison control cen-

ter or doctor for treatment advice.

If swallowed No emergency medical treatment necessary.

Most important symptoms and effects, both acute and

None known.

delaved

Protection of first-aiders

First Aid responders should pay attention to self-protection

and use the recommended protective clothing (chemical re-

sistant gloves, splash protection).

If potential for exposure exists refer to Section 8 for specific

personal protective equipment.

No specific antidote. Notes to physician

Treatment of exposure should be directed at the control of

symptoms and the clinical condition of the patient.

Have the Safety Data Sheet, and if available, the product container or label with you when calling a poison control center or

doctor, or going for treatment.

SECTION 5. FIREFIGHTING MEASURES

Suitable extinguishing media Water spray

Alcohol-resistant foam

None known.

Unsuitable extinguishing me-

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 prod-

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:

Nitrogen oxides (NOx) Hydrogen chloride gas

Carbon oxides

Specific extinguishing meth-

ods

Remove undamaged containers from fire area if it is safe to do

SO.

Evacuate area.

Use extinguishing measures that are appropriate to local cir-

cumstances 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 nec-

essary.

Use personal protective equipment.

SECTION 6. ACCIDENTAL RELEASE MEASURES

Personal precautions, protec: : tive equipment and emergency procedures

Use appropriate safety equipment. For additional information, refer to Section 8, Exposure Controls and Personal Protection.

If the product contaminates rivers and lakes or drains inform **Environmental precautions**

respective authorities.

Discharge into the environment must be avoided. Prevent further leakage or spillage if safe to do so.

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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 can-

not be contained.

Prevent from entering into soil, ditches, sewers, underwater.

See Section 12, Ecological Information.

Methods and materials for containment and cleaning up

Clean up remaining materials from spill with suitable absorb-

ant

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 overpressurization of the container.

Keep in suitable, closed containers for disposal. Wipe up with absorbent material (e.g. cloth, fleece). Neutralize with chalk, alkali solution or ammonia.

Soak up with inert absorbent material (e.g. sand, silica gel,

acid binder, universal binder, sawdust).

See Section 13, Disposal Considerations, for additional infor-

mation.

SECTION 7. HANDLING AND STORAGE

Advice on safe handling : Do not breathe vapours/dust.

Handle in accordance with good industrial hygiene and safety

practice.

Smoking, eating and drinking should be prohibited in the appli-

cation 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 : Do not store near acids.

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 opera-

tions.

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Personal protective equipment

Respiratory protection Respiratory protection should be worn when there is a poten-

> tial to exceed the exposure limit requirements or guidelines. If there are no applicable exposure limit requirements or guidelines, wear respiratory protection when adverse effects, such as respiratory irritation or discomfort have been experienced, or where indicated by your risk assessment process. For most conditions no respiratory protection should be needed; however, if discomfort is experienced, use an ap-

proved air-purifying respirator.

Hand protection

Use gloves chemically resistant to this material when pro-Remarks

> longed or frequently repeated contact could occur. Examples of preferred glove barrier materials include: Butvl rubber, Natural rubber ("latex"). Neoprene. Nitrile/butadiene rubber ("nitrile" or "NBR"). Polyethylene. Ethyl vinyl alcohol laminate ("EVAL"). Polyvinyl chloride ("PVC" or "vinyl"). NOTICE: The selection of a specific glove for a particular application and duration of use in a workplace should also take into account all relevant workplace factors such as, but not limited to: Other chemicals which may be handled, physical requirements (cut/puncture protection, dexterity, thermal protection), potential body reactions to glove materials, as well as the instructions/specifications provided by the glove supplier.

Use safety glasses (with side shields). Eye protection Wear clean, body-covering clothing. Skin and body protection

SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance Liquid.

Colour Blue

Odour Characteristic

Odour Threshold No data available

рΗ 3.7 (21.0 °C)

> Concentration: 1 % Method: pH Electrode (1% aqueous suspension)

Melting point/range Not applicable

No data available Freezing point

Boiling point/boiling range No data available

> 100 °C Flash point

Method: Pensky-Martens Closed Cup ASTM D 93, closed cup

Evaporation rate No data available

Flammability (solid, gas) No data available

Upper explosion limit / Upper : No data available

flammability limit

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Lower explosion limit / Lower

flammability limit

No data available

Vapour pressure : No data available

Relative vapour density : No data available

Relative density : 1.229 (20 °C)

Density : No data available

Solubility(ies)

Water solubility : No data available

Auto-ignition temperature : No data available

Viscosity

Viscosity, dynamic : 13.4 mPa,s (20 °C)

6.7 mPa,s (40 °C)

Explosive properties : No data available

Oxidizing properties : No significant increase (>5C) in temperature.

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-

tions

Stable under recommended storage conditions.

No hazards to be specially mentioned.

None known.
Conditions to avoid : None known.

Incompatible materials : Strong acids

Strong bases
Hazardous decomposition : Decompositio

products

Decomposition products depend upon temperature, air supply

and the presence of other materials.

Decomposition products can include and are not limited to:

Nitrogen oxides (NOx) Hydrogen chloride gas

Carbon oxides

SECTION 11. TOXICOLOGICAL INFORMATION

Acute toxicity

Product:

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

Method: OECD Test Guideline 423

Remarks: Information source: Internal study report

Acute inhalation toxicity : LC50 (Rat, male and female): > 5.12 mg/l

Exposure time: 4 h

Test atmosphere: dust/mist

Method: OECD Test Guideline 403

Symptoms: No deaths occurred at this concentration.

Assessment: The substance or mixture has no acute inhala-

tion toxicity

according to the Hazardous Products Regulations



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Remarks: Information source: Internal study report

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

Method: OECD Test Guideline 402

Remarks: Information source: Internal study report

Components:

Clopyralid-dimethylammonium salt:

Acute oral toxicity : LD50 (Rat): > 2,000 mg/kg

Symptoms: No deaths occurred at this concentration.

Assessment: The substance or mixture has no acute oral tox-

icity

Remarks: For similar material(s):

Acute inhalation toxicity : LC50 (Rat): > 5.12 mg/l

Exposure time: 4 h

Test atmosphere: dust/mist

Symptoms: No deaths occurred at this concentration.

Assessment: The substance or mixture has no acute inhala-

tion toxicity

Remarks: For similar material(s):

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

Remarks: For similar material(s):

Skin corrosion/irritation

Product:

Species : Rabbit

Method : OECD Test Guideline 404

Result : No skin irritation

Remarks : Information source: Internal study report

Serious eye damage/eye irritation

Product:

Species : Rabbit

Result : No eye irritation

Method : OECD Test Guideline 405

Remarks : Information source: Internal study report

Respiratory or skin sensitisation

Product:

Test Type : Local lymph node assay (LLNA)

Species : Mouse

Method : OECD Test Guideline 429

Result : Does not cause skin sensitisation.
Remarks : Information source: Internal study report

Components:

Clopyralid-dimethylammonium salt:

Remarks : For similar material(s):

Did not demonstrate the potential for contact allergy in mice.

Remarks : For respiratory sensitization:

No relevant data found.

according to the Hazardous Products Regulations



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Germ cell mutagenicity

Components:

Clopyralid-dimethylammonium salt:

sessment

Germ cell mutagenicity - As- : For similar active ingredient(s)., Clopyralid., In vitro genetic toxicity studies were negative., Animal genetic toxicity studies

were negative.

Carcinogenicity

Components:

Clopyralid-dimethylammonium salt:

Carcinogenicity - Assess-

: For similar active ingredient(s)., Clopyralid., Did not cause

cancer in laboratory animals.

Reproductive toxicity

Components:

Clopyralid-dimethylammonium salt:

Reproductive toxicity - As-

sessment

ment

For similar active ingredient(s)., Clopyralid., In animal studies,

did not interfere with reproduction.

For similar active ingredient(s)., Clopyralid caused birth defects in test animals, but only at greatly exaggerated doses that were severely toxic to the mothers. No birth defects were observed in animals given clopyralid at doses several times

greater than those expected during normal exposure.

STOT - single exposure

Product:

Assessment Evaluation of available data suggests that this material is not

an STOT-SE toxicant.

Components:

Clopyralid-dimethylammonium salt:

Assessment : Evaluation of available data suggests that this material is not

an STOT-SE toxicant.

STOT - repeated exposure

Product:

Assessment : Evaluation of available data suggests that this material is not

an STOT-RE toxicant.

Repeated dose toxicity

Components:

Clopyralid-dimethylammonium salt:

Remarks For similar active ingredient(s).

Clopyralid.

Based on available data, repeated exposures are not antici-

pated to cause significant adverse effects.

Aspiration toxicity

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

Components:

Clopyralid-dimethylammonium salt:

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

SECTION 12. ECOLOGICAL INFORMATION

Ecotoxicity

Components:

Clopyralid-dimethylammonium salt:

Toxicity to fish Remarks: For similar material(s):

Material is practically non-toxic to fish on an acute basis

(LC50 > 100 mg/L).

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LC50 (Oncorhynchus mykiss (rainbow trout)): > 99.9 mg/l

Exposure time: 96 h Test Type: static test

Remarks: For similar material(s):

LC50 (Lepomis macrochirus (Bluegill sunfish)): > 102 mg/l

Exposure time: 96 h

Remarks: For similar material(s):

Toxicity to daphnia and other :

aquatic invertebrates

EC50 (Daphnia magna (Water flea)): > 99 mg/l

Exposure time: 48 h Test Type: static test

Remarks: For similar material(s):

Toxicity to algae/aquatic

plants

ErC50 (Pseudokirchneriella subcapitata (green algae)): 33.1

mg/l

End point: Growth rate inhibition

Exposure time: 96 h

Remarks: For similar material(s):

ErC50 (Myriophyllum spicatum): > 3 mg/l

Exposure time: 14 d

Remarks: For similar material(s):

NOEC (Myriophyllum spicatum): 0.0089 mg/l

Exposure time: 14 d

Remarks: For similar material(s):

M-Factor (Chronic aquatic

toxicity)

Ecotoxicology Assessment

Acute aquatic toxicity : Toxic to aquatic life.

Chronic aquatic toxicity : Very toxic to aquatic life with long lasting effects.

Persistence and degradability

Components:

Clopyralid-dimethylammonium salt:

Biodegradability : Remarks: For similar active ingredient(s).

10

Clopyralid.

Material is expected to biodegrade very slowly (in the environment). Fails to pass OECD/EEC tests for ready biodegrada-

bility.

Bioaccumulative potential

Components:

Clopyralid-dimethylammonium salt:

Partition coefficient: n-oc-

tanol/water

Remarks: For similar active ingredient(s).

Clopyralid.

Bioconcentration potential is low (BCF < 100 or Log Pow < 3).

Balance:

Partition coefficient: n-oc-

tanol/water

Remarks: No relevant data found.

Mobility in soil Components:

Clopyralid-dimethylammonium salt:

Distribution among environ: Remarks: For similar active ingredient(s).

mental compartments Clopyralid.

according to the Hazardous Products Regulations



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Potential for mobility in soil is very high (Koc between 0 and

Balance:

Distribution among environmental compartments

Remarks: No relevant data found.

Other adverse effects

Components:

Clopyralid-dimethylammonium salt:

sessment

Results of PBT and vPvB as- : 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 as- :

sessment

This substance has not been assessed for persistence, bioac-

cumulation and toxicity (PBT).

Remarks: This substance is not on the Montreal Protocol list Ozone-Depletion Potential

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 regu-

lations.

If the material as supplied becomes a waste, follow all applica-

ble 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.

(Clopyralid-dimethylammonium salt)

Class 9 Ш Packing group Labels 9 Environmentally hazardous yes

IATA-DGR

UN/ID No.

Proper shipping name Environmentally hazardous substance, liquid, n.o.s.

(Clopyralid-dimethylammonium salt)

Class Packing group Ш

Miscellaneous Labels

Packing instruction (cargo

aircraft)

964

according to the Hazardous Products Regulations



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Packing instruction (passen- :

ger aircraft)

: 964

IMDG-Code

UN number : UN 3082

Proper shipping name : ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID,

N.O.S.

(Clopyralid-dimethylammonium salt)

Class : 9
Packing group : III
Labels : 9
EmS Code : F-A, S-F

Marine pollutant : yes(Clopyralid-dimethylammonium salt)

Remarks : Stowage category A

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.

(Clopyralid-dimethylammonium salt)

Class : 9
Packing group : III
Labels : 9
ERG Code : 171

Marine pollutant : yes(Clopyralid-dimethylammonium salt)

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 : 32795

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

according to the Hazardous Products Regulations



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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.

This product is toxic to: Non-target terrestrial plants

SECTION 16. OTHER INFORMATION

Information Source and References

This SDS is prepared by Product Regulatory Services and Hazard Communications Groups from information supplied by internal references within our company.

Full text of other abbreviations

ADR - Agreement concerning the International Carriage of Dangerous Goods by Road; ASTM - American Society for the Testing of Materials; ECx - Concentration associated with x% response; EmS - Emergency Schedule; ErCx - Concentration associated with x% growth rate response; GHS - Globally Harmonized System; GLP - Good Laboratory Practice; IATA - International Air Transport Association; IBC - International Code for the Construction and Equipment of Ships carrying Dangerous Chemicals in Bulk; IC50 - Half maximal inhibitory concentration; IMDG - International Maritime Dangerous Goods; IMO - International Maritime Organization; LC50 - Lethal Concentration to 50 % of a test population; LD50 - Lethal Dose to 50% of a test population (Median Lethal Dose); MARPOL - International Convention for the Prevention of Pollution from Ships; n.o.s. - not otherwise specified; NOEC - Non-Observed Effective Concentration; OECD - Organization for Economic Co-operation and Development; OPPTS - Office of Chemical Safety and Pollution Prevention; (Q)SAR - (Quantitative) Structure Activity Relationship; RID - Regulations concerning the International Carriage of Dangerous Goods by Rail; SDS - Safety Data Sheet; UN - United Nations.

DSL - Domestic substances List. WHMIS - Workplace Hazardous Materials Information System.

Revision Date : 04/18/2024 Date format : mm/dd/yyyy

Product code: GF-2551

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.

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