

# SAFETY DATA SHEET

according to the OSHA Hazard Communication Standard



## Garlon 4 Ultra

|         |                |              |                                 |
|---------|----------------|--------------|---------------------------------|
| Version | Revision Date: | SDS Number:  | Date of last issue: 07/31/2023  |
| 1.2     | 10/11/2023     | 800080004588 | Date of first issue: 03/31/2022 |

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 the United States and may not meet the regulatory requirements in other countries.

### SECTION 1. IDENTIFICATION

Product name : Garlon 4 Ultra

#### Manufacturer or supplier's details

##### COMPANY IDENTIFICATION

Manufacturer/importer : CORTEVA AGRISCIENCE LLC  
9330 ZIONSVILLE RD  
INDIANAPOLIS, IN, 46268-1053  
UNITED STATES

Customer Information : 1-800-258-3033  
Number  
E-mail address : customerinformation@corteva.com

Emergency telephone : INFOTRAC (CONTRACT 84224).  
+1 800-992-5994 or +1 317-337-6009

#### 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 OSHA Hazard Communication Standard (29 CFR 1910.1200)

Skin sensitization : Sub-category 1B

Specific target organ toxicity : Category 2 (Kidney)  
- repeated exposure

#### GHS label elements

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Hazard pictograms

:



Signal Word

:

Warning

Hazard Statements

:

H317 May cause an allergic skin reaction.  
H373 May cause damage to organs (Kidney) through prolonged or repeated exposure.

Precautionary Statements

:

### Prevention:

P260 Do not breathe dust/ fume/ gas/ mist/ vapors/ spray.  
P272 Contaminated work clothing must not be allowed out of the workplace.  
P280 Wear protective gloves.

### Response:

P302 + P352 IF ON SKIN: Wash with plenty of soap and water.  
P314 Get medical advice/ attention if you feel unwell.  
P333 + P313 If skin irritation or rash occurs: Get medical advice/ attention.  
P363 Wash contaminated clothing before reuse.

### 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                 | CAS-No.      | Concentration (% w/w) |
|-------------------------------|--------------|-----------------------|
| Triclopyr-2-butoxyethyl ester | 64700-56-7   | 60.45                 |
| Balance                       | Not Assigned | >= 30 - < 40          |

Actual concentration 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

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- or doctor for treatment advice.  
Wash clothing before reuse. Shoes and other leather items which cannot be decontaminated should be disposed of properly.
- 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 center or doctor for treatment advice.
- If swallowed : Call a poison control center or doctor immediately for treatment advice. Have person sip a glass of water if able to swallow. Do not induce vomiting unless told to do so by the poison control center or doctor.  
Never give anything by mouth to an unconscious person.
- Most important symptoms and effects, both acute and delayed : None known.
- Protection of first-aiders : First Aid responders should pay attention to self-protection and use the recommended protective clothing (chemical resistant gloves, splash protection).  
If potential for exposure exists refer to Section 8 for specific personal protective equipment.
- Notes to physician : No specific antidote.  
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. FIRE-FIGHTING MEASURES

- Suitable extinguishing media : Water spray  
Alcohol-resistant foam  
Carbon dioxide (CO<sub>2</sub>)  
Dry chemical
- Unsuitable extinguishing media : Do not use direct water stream.
- 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:  
Nitrogen oxides (NO<sub>x</sub>)

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Hydrogen chloride gas  
Carbon oxides

- 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 fire-fighters : In the event of fire, wear self-contained breathing apparatus.  
Use personal protective equipment.

### SECTION 6. ACCIDENTAL RELEASE MEASURES

- Personal precautions, protective equipment and emergency procedures : Use personal protective equipment.  
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, underwater.  
See Section 12, Ecological Information.
- 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).  
Neutralize with chalk, alkali solution or ammonia.  
Soak up with inert absorbent material (e.g. sand, silica gel, acid binder, universal binder, sawdust).

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See Section 13, Disposal Considerations, for additional information.

### SECTION 7. HANDLING AND STORAGE

- Advice on safe handling** : Persons susceptible to skin sensitization problems or asthma, allergies, chronic or recurrent respiratory disease should not be employed in any process in which this mixture is being used.  
Handle in accordance with good industrial hygiene and safety practice.  
Avoid exposure - obtain special instructions before use.  
Smoking, eating and drinking should be prohibited in the application area.  
Do not get on skin or clothing.  
Avoid inhalation of vapor or mist.  
Do not swallow.  
Avoid contact with eyes.  
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 labeled 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

#### Ingredients with workplace control parameters

| Components                    | CAS-No.    | Value type<br>(Form of exposure) | Control parameters / Permissible concentration | Basis   |
|-------------------------------|------------|----------------------------------|------------------------------------------------|---------|
| Triclopyr-2-butoxyethyl ester | 64700-56-7 | TWA                              | 2 mg/m3                                        | Dow IHG |

- 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.

#### Personal protective equipment

- Respiratory protection** : Respiratory protection should be worn when there is a potential to exceed the exposure limit requirements or guidelines.

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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 approved air-purifying respirator.

### Hand protection

Remarks : Use gloves chemically resistant to this material when prolonged or frequently repeated contact could occur. Examples of preferred glove barrier materials include: Butyl rubber. Chlorinated polyethylene. Polyethylene. Ethyl vinyl alcohol laminate ("EVAL"). Examples of acceptable glove barrier materials include: Natural rubber ("latex"). Neoprene. Nitrile/butadiene rubber ("nitrile" or "NBR"). Polyvinyl chloride ("PVC" or "vinyl"). Viton. 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.

Eye protection : Use safety glasses (with side shields).

Skin and body protection : Use protective clothing chemically resistant to this material. Selection of specific items such as face shield, boots, apron, or full body suit will depend on the task.

## SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance : Liquid.

Color : Yellow

Odor : Mild

Odor Threshold : No data available

pH : 3.36 (73 °F / 23 °C)  
Concentration: 1 %  
Method: pH Electrode  
(1% aqueous suspension)

Melting point/range : Not applicable

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|                                                  |                                                                                  |
|--------------------------------------------------|----------------------------------------------------------------------------------|
| Freezing point                                   | No data available                                                                |
| Boiling point/boiling range                      | : No data available                                                              |
| Flash point                                      | : > 212 °F / > 100 °C<br>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 flammability limit | : No data available                                                              |
| Lower explosion limit / Lower flammability limit | : No data available                                                              |
| Vapor pressure                                   | : No data available                                                              |
| Relative vapor density                           | : No data available                                                              |
| Density                                          | : 1.11 g/cm <sup>3</sup> (68 °F / 20 °C)<br>Method: Digital density meter        |
| Solubility(ies)<br>Water solubility              | : emulsifies                                                                     |
| Autoignition temperature                         | : > 617 °F / > 325 °C                                                            |
| Viscosity<br>Viscosity, dynamic                  | : 23.4 mPa.s (68 °F / 20 °C)<br>10.8 mPa.s (104 °F / 40 °C)                      |
| Explosive properties                             | : No                                                                             |
| 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.<br>Stable under normal conditions. |
| Possibility of hazardous reactions | : Stable under recommended storage conditions.<br>No hazards to be specially mentioned.  |

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|                                  |                                                                                                                                                                                                                                    |
|----------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Conditions to avoid              | : None known.                                                                                                                                                                                                                      |
| Incompatible materials           | : Strong oxidizing agents                                                                                                                                                                                                          |
| Hazardous decomposition products | : Decomposition products depend upon temperature, air supply and the presence of other materials.<br>Decomposition products can include and are not limited to:<br>Nitrogen oxides (NOx)<br>Hydrogen chloride gas<br>Carbon oxides |

### SECTION 11. TOXICOLOGICAL INFORMATION

#### Acute toxicity

##### Product:

|                           |                                                                                                                                                                                                                                                                   |
|---------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Acute oral toxicity       | : LD50 (Rat, female): 3,200 mg/kg<br>Method: OECD Test Guideline 425                                                                                                                                                                                              |
| Acute inhalation toxicity | : LC50 (Rat, male and female): > 5.05 mg/l<br>Exposure time: 4 h<br>Test atmosphere: dust/mist<br>Method: OECD Test Guideline 403<br>Symptoms: No deaths occurred at this concentration.<br>Assessment: The substance or mixture has no acute inhalation toxicity |
| Acute dermal toxicity     | : LD50 (Rat, male and female): > 5,000 mg/kg<br>Method: OECD Test Guideline 402                                                                                                                                                                                   |

##### Components:

##### **Triclopyr-2-butoxyethyl ester:**

|                           |                                                                                                                                                                                                                                         |
|---------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Acute oral toxicity       | : LD50 (Rat, male and female): 803 mg/kg                                                                                                                                                                                                |
| Acute inhalation toxicity | : LC50 (Rat): > 4.8 mg/l<br>Exposure time: 4 h<br>Test atmosphere: dust/mist<br>Symptoms: The LC50 value is greater than the Maximum Attainable Concentration.<br>Assessment: The substance or mixture has no acute inhalation toxicity |
| Acute dermal toxicity     | : LD50 (Rabbit): > 2,000 mg/kg<br>Symptoms: No deaths occurred at this concentration.<br>Assessment: The substance or mixture has no acute dermal toxicity                                                                              |

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### Skin corrosion/irritation

#### Product:

|         |   |                         |
|---------|---|-------------------------|
| Species | : | Rabbit                  |
| Method  | : | OECD Test Guideline 404 |
| Result  | : | Mild skin irritation    |

#### Components:

##### Triclopyr-2-butoxyethyl ester:

|         |   |                    |
|---------|---|--------------------|
| Species | : | Rabbit             |
| Result  | : | No skin irritation |

### Serious eye damage/eye irritation

#### Product:

|         |   |                   |
|---------|---|-------------------|
| Species | : | Rabbit            |
| Result  | : | No eye irritation |

#### Components:

##### Triclopyr-2-butoxyethyl ester:

|         |   |                   |
|---------|---|-------------------|
| Species | : | Rabbit            |
| Result  | : | No eye irritation |

### Respiratory or skin sensitization

#### Product:

|           |   |                                                    |
|-----------|---|----------------------------------------------------|
| Test Type | : | Local lymph node assay (LLNA)                      |
| Species   | : | Mouse                                              |
| Result    | : | The product is a skin sensitizer, sub-category 1B. |

#### Components:

##### Triclopyr-2-butoxyethyl ester:

|            |   |                                                    |
|------------|---|----------------------------------------------------|
| Species    | : | Guinea pig                                         |
| Assessment | : | The product is a skin sensitizer, sub-category 1B. |

### Germ cell mutagenicity

#### Components:

##### Triclopyr-2-butoxyethyl ester:

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

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### Carcinogenicity

#### Components:

##### Triclopyr-2-butoxyethyl ester:

Carcinogenicity - Assessment : For similar active ingredient(s), Triclopyr., Did not cause cancer in laboratory animals.

**IARC** No ingredient of this product present at levels greater than or equal to 0.1% is identified as probable, possible or confirmed human carcinogen by IARC.

**OSHA** No component of this product present at levels greater than or equal to 0.1% is on OSHA's list of regulated carcinogens.

**NTP** No ingredient of this product present at levels greater than or equal to 0.1% is identified as a known or anticipated carcinogen by NTP.

### Reproductive toxicity

#### Components:

##### Triclopyr-2-butoxyethyl ester:

Reproductive toxicity - Assessment : For similar active ingredient(s), Triclopyr., In laboratory animal studies, effects on reproduction have been seen only at doses that produced significant toxicity to the parent animals. Has been toxic to the fetus in laboratory animals at doses toxic to the mother., Did not cause birth defects in laboratory animals.

### STOT-single exposure

#### Product:

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

#### Components:

##### Triclopyr-2-butoxyethyl ester:

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

### STOT-repeated exposure

#### Components:

##### Triclopyr-2-butoxyethyl ester:

Target Organs : Kidney  
Assessment : May cause damage to organs through prolonged or repeated exposure.

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### Aspiration toxicity

#### Product:

Based on available information, aspiration hazard could not be determined.

#### Components:

#### Triclopyr-2-butoxyethyl ester:

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

## SECTION 12. ECOLOGICAL INFORMATION

### Ecotoxicity

#### Product:

- |                                                     |                                                                                                                                                                                                                                                                                                                               |
|-----------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Toxicity to fish                                    | : LC50 ( <i>Lepomis macrochirus</i> (Bluegill sunfish)): 0.44 mg/l<br>Exposure time: 96 h<br>Method: OECD Test Guideline 203 or Equivalent<br>Remarks: For similar material(s):<br><br>LC50 ( <i>Oncorhynchus mykiss</i> (rainbow trout)): 0.984 mg/l<br>Exposure time: 96 h<br>Method: OECD Test Guideline 203 or Equivalent |
| Toxicity to daphnia and other aquatic invertebrates | : EC50 ( <i>Daphnia magna</i> (Water flea)): 0.35 mg/l<br>Exposure time: 48 h<br>Method: OECD Test Guideline 202 or Equivalent<br>Remarks: For similar material(s):                                                                                                                                                           |
| Toxicity to algae/aquatic plants                    | : EbC50 ( <i>Pseudokirchneriella subcapitata</i> (green algae)): 11 mg/l<br>End point: Biomass<br>Exposure time: 72 h<br>Method: OECD Test Guideline 201 or Equivalent<br>Remarks: For similar material(s):                                                                                                                   |
| Toxicity to terrestrial organisms                   | : oral LD50 ( <i>Colinus virginianus</i> (Bobwhite quail)): 1,350 mg/kg<br>Remarks: Based on information for a similar material:                                                                                                                                                                                              |

#### Components:

#### Triclopyr-2-butoxyethyl ester:

- |                                                     |                                                                                                                           |
|-----------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------|
| Toxicity to fish                                    | : LC50 ( <i>Lepomis macrochirus</i> (Bluegill sunfish)): 0.36 mg/l<br>Exposure time: 96 h<br>Test Type: flow-through test |
| Toxicity to daphnia and other aquatic invertebrates | : EC50 ( <i>Daphnia magna</i> (Water flea)): 2.9 mg/l<br>Exposure time: 48 h<br>Method: OECD Test Guideline 202           |
| Toxicity to algae/aquatic                           | : ErC50 ( <i>Pseudokirchneriella subcapitata</i> (green algae)): > 3.00                                                   |

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|                                                                        |                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
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| plants                                                                 | mg/l<br>End point: Growth rate inhibition<br>Exposure time: 96 h<br>Method: OECD Test Guideline 201<br><br>ErC50 ( <i>Myriophyllum spicatum</i> ): 0.0473 mg/l<br>Exposure time: 14 d<br><br>NOEC ( <i>Myriophyllum spicatum</i> ): 0.00722 mg/l<br>Exposure time: 14 d                                                                                                                                                                            |
| M-Factor (Acute aquatic toxicity)                                      | : 10                                                                                                                                                                                                                                                                                                                                                                                                                                               |
| Toxicity to fish (Chronic toxicity)                                    | : NOEC (Rainbow trout ( <i>Oncorhynchus mykiss</i> )): 0.0263 mg/l                                                                                                                                                                                                                                                                                                                                                                                 |
| Toxicity to daphnia and other aquatic invertebrates (Chronic toxicity) | : NOEC ( <i>Daphnia magna</i> (Water flea)): 1.6 mg/l<br>End point: number of offspring<br>Exposure time: 21 d<br><br>LOEC ( <i>Daphnia magna</i> (Water flea)): 5.1 mg/l<br>End point: number of offspring<br>Exposure time: 21 d<br><br>MATC (Maximum Acceptable Toxicant Level) ( <i>Daphnia magna</i> (Water flea)): 2.9 mg/l<br>End point: number of offspring<br>Exposure time: 21 d                                                         |
| M-Factor (Chronic aquatic toxicity)                                    | : 10                                                                                                                                                                                                                                                                                                                                                                                                                                               |
| Toxicity to soil dwelling organisms                                    | : LC50 ( <i>Eisenia fetida</i> (earthworms)): > 1,042 mg/kg<br>Exposure time: 14 d                                                                                                                                                                                                                                                                                                                                                                 |
| Toxicity to terrestrial organisms                                      | : oral LD50 ( <i>Colinus virginianus</i> (Bobwhite quail)): 735 mg/kg bodyweight.<br>Exposure time: 21 d<br><br>dietary LC50 ( <i>Colinus virginianus</i> (Bobwhite quail)): 1890 mg/kg diet.<br>Exposure time: 8 d<br><br>oral LD50 ( <i>Apis mellifera</i> (bees)): > 110 µg/bee<br>Exposure time: 48 h<br>End point: mortality<br><br>contact LD50 ( <i>Apis mellifera</i> (bees)): > 100 µg/bee<br>Exposure time: 48 h<br>End point: mortality |

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### Persistence and degradability

#### Components:

##### Triclopyr-2-butoxyethyl ester:

|                                 |   |                                                                                                                                                                     |
|---------------------------------|---|---------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Biodegradability                | : | Result: Not readily biodegradable.<br>Biodegradation: 18 %<br>Exposure time: 28 d<br>Method: OECD Test Guideline 301B or Equivalent<br>Remarks: 10-day Window: Fail |
| Biochemical Oxygen Demand (BOD) | : | 0.004 kg/kg                                                                                                                                                         |
| ThOD                            | : | 1.39 kg/kg                                                                                                                                                          |
| Stability in water              | : | Test Type: Hydrolysis<br>Degradation half life (half-life): 8.7 d (25 °C) pH: 7                                                                                     |
| Photodegradation                | : | Rate constant: 2.3E-11 cm <sup>3</sup> /s<br>Method: Estimated.                                                                                                     |

### Bioaccumulative potential

#### Components:

##### Triclopyr-2-butoxyethyl ester:

|                                        |   |                                                                                                                                  |
|----------------------------------------|---|----------------------------------------------------------------------------------------------------------------------------------|
| Bioaccumulation                        | : | Species: Fish<br>Bioconcentration factor (BCF): 110                                                                              |
| Partition coefficient: n-octanol/water | : | log Pow: 4.62<br>pH: 7<br>Remarks: Bioconcentration potential is moderate (BCF between 100 and 3000 or Log Pow between 3 and 5). |

#### Balance:

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

### Mobility in soil

#### Components:

##### Triclopyr-2-butoxyethyl ester:

|                                               |   |                                                                                                                                                                                                                                   |
|-----------------------------------------------|---|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Distribution among environmental compartments | : | Remarks: Calculation of meaningful sorption data was not possible due to very rapid degradation in the soil.<br>For the degradation product:<br>Triclopyr.<br>Potential for mobility in soil is very high (Koc between 0 and 50). |
| Stability in soil                             | : | Test Type: aerobic degradation<br>Dissipation time: 144 - 1,248 h                                                                                                                                                                 |

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### Balance:

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

### Other adverse effects

### Components:

#### Triclopyr-2-butoxyethyl ester:

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).

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.

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(Triclopyr-2-butoxyethyl ester)

|                           |       |
|---------------------------|-------|
| Class                     | : 9   |
| Packing group             | : III |
| Labels                    | : 9   |
| Environmentally hazardous | : no  |

### IATA-DGR

|                                          |                                                                                          |
|------------------------------------------|------------------------------------------------------------------------------------------|
| UN/ID No.                                | : UN 3082                                                                                |
| Proper shipping name                     | : Environmentally hazardous substance, liquid, n.o.s.<br>(Triclopyr-2-butoxyethyl ester) |
| 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.<br>(Triclopyr-2-butoxyethyl ester) |
| Class                | : 9                                                                                      |
| Packing group        | : III                                                                                    |
| Labels               | : 9                                                                                      |
| EmS Code             | : F-A, S-F                                                                               |
| Marine pollutant     | : yes(Triclopyr-2-butoxyethyl ester)                                                     |
| 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.

### Domestic regulation

#### 49 CFR Road

Not regulated as a dangerous good

### 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 5L 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.

### 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

|                             |                                                                                                     |
|-----------------------------|-----------------------------------------------------------------------------------------------------|
| <b>SARA 311/312 Hazards</b> | : Respiratory or skin sensitization<br>Specific target organ toxicity (single or repeated exposure) |
|-----------------------------|-----------------------------------------------------------------------------------------------------|

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### SARA 313

: The following components are subject to reporting levels established by SARA Title III, Section 313:

|                               |            |                |
|-------------------------------|------------|----------------|
| Triclopyr-2-butoxyethyl ester | 64700-56-7 | >= 50 - < 70 % |
| 2-butoxyethanol               | 111-76-2   | >= 0.1 - < 1 % |
| 2-Butoxyethyl Chloroacetate   | 5330-17-6  | >= 0.1 - < 1 % |

### US State Regulations

#### Pennsylvania Right To Know

|                               |            |
|-------------------------------|------------|
| Triclopyr-2-butoxyethyl ester | 64700-56-7 |
|-------------------------------|------------|

**The ingredients of this product are reported in the following inventories:**

TSCA : Product contains substance(s) not listed on TSCA inventory.

#### TSCA list

The following substance(s) is/are subject to a Significant New Use Rule:

|                                         |            |                                   |
|-----------------------------------------|------------|-----------------------------------|
| Triclopyr Ethyl Ester: 3,5,6-Trichloro- | 60825-27-6 | See 40 CFR § 721.8775; Final Rule |
| 2-pyridinyloxyacetic acid, ethyl ester  |            |                                   |

No substances are subject to TSCA 12(b) export notification requirements.

### Federal Insecticide, Fungicide and Rodenticide Act

EPA Registration Number : 62719-527

This chemical is a pesticide product registered by the Environmental Protection Agency and is subject to certain labeling requirements under federal pesticide law. These requirements differ from the classification criteria and hazard information required for safety data sheets, and for workplace labels of non-pesticide chemicals. Following is the hazard information as required on the pesticide label:

#### CAUTION

Causes moderate eye irritation

Harmful if swallowed

Prolonged or frequently repeated skin contact may cause allergic reactions in some individuals.

## 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.

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### Full text of other abbreviations

Dow IHG : Dow Industrial Hygiene Guideline  
Dow IHG / TWA : Time Weighted Average (TWA):

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. CFR - Code of Federal Regulations. IARC - International Agency for Research on Cancer. IATA-DGR - International Air Transport Association Dangerous Goods Regulations. OSHA - Occupational Safety and Health Administration. RCRA - Resource Conservation and Recovery Act. RQ - Reportable Quantity. SARA - Superfund Amendments and Reauthorization Act. TSCA - Toxic Substances Control Act.

Revision Date : 10/11/2023

Product code: GF-1529

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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