1. IDENTIFICATION

Product name: MILESTONE™ Herbicide

Recommended use of the chemical and restrictions on use

Identified uses: End use herbicide product

COMPANY IDENTIFICATION
DOW AGROSCIENCES CANADA INC.
#2450, 215 - 2ND STREET S.W.
CALGARY AB T2P 1M4
CANADA

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

EMERGENCY TELEPHONE NUMBER
24-Hour Emergency Contact: 1-888-226-8832
Local Emergency Contact: 1-888-226-8832

2. HAZARDS IDENTIFICATION

Emergency Overview

Appearance

<table>
<thead>
<tr>
<th>Physical state</th>
<th>Liquid</th>
</tr>
</thead>
<tbody>
<tr>
<td>Color</td>
<td>Brown</td>
</tr>
<tr>
<td>Odor</td>
<td>Mild</td>
</tr>
</tbody>
</table>

Hazard Summary

Toxic fumes may be released in fire situations.
Highly toxic to fish and/or other aquatic organisms.
Potential Health Effects

Skin: Essentially nonirritating to skin.

Eyes: Essentially nonirritating to eyes. Corneal injury is unlikely.

Skin: Prolonged skin contact is unlikely to result in absorption of harmful amounts.

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

Ingestion: Very low toxicity if swallowed. Harmful effects not anticipated from swallowing small amounts.

Inhalation: No adverse effects are anticipated from single exposure to mist. Based on the available data, respiratory irritation was not observed.

3. COMPOSITION/INFORMATION ON INGREDIENTS

This product is a mixture.

<table>
<thead>
<tr>
<th>Component</th>
<th>CASRN</th>
<th>Weight percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Aminopyralid Triisopropanolamine Salt</td>
<td>566191-89-7</td>
<td>40.6%</td>
</tr>
<tr>
<td>Triisopropanolamine</td>
<td>122-20-3</td>
<td>1.5%</td>
</tr>
<tr>
<td>Balance</td>
<td>Not available</td>
<td>57.9%</td>
</tr>
</tbody>
</table>

4. FIRST AID MEASURES

Description of first aid measures

General advice:
If potential for exposure exists refer to Section 8 for specific personal protective equipment.

Inhalation: 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.

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.

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.

Ingestion: No emergency medical treatment necessary.

Most important symptoms and effects, both acute and delayed:
Aside from the information found under Description of first aid measures (above) and Indication of immediate medical attention and special treatment needed (below), any additional important symptoms and effects are described in Section 11: Toxicology Information.
Indication of any immediate medical attention and special treatment needed
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.

5. FIREFIGHTING MEASURES

Suitable extinguishing media: To extinguish combustible residues of this product use water fog, carbon dioxide, dry chemical or foam.

Unsuitable extinguishing media: None known.

Special hazards arising from the substance or mixture
Hazardous combustion products: Under fire conditions some components of this product may decompose. The smoke may contain unidentified toxic and/or irritating compounds. Combustion products may include and are not limited to: Nitrogen oxides. Hydrogen chloride. Carbon monoxide. Carbon dioxide.

Unusual Fire and Explosion Hazards: Exposure to combustion products may be a hazard to health. Do not allow run-off from fire fighting to enter drains or water courses.

Advice for firefighters
Fire Fighting Procedures: 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.

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.

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

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: Prevent from entering into soil, ditches, sewers, waterways and/or groundwater. See Section 12, Ecological Information.

Methods and materials for containment and cleaning up: Contain spilled material if possible. Small spills: Absorb with materials such as: Clay. Dirt. Sand. Sweep up. Collect in suitable and properly labeled containers. Large spills: Contact the company for clean-up assistance. See Section 13, Disposal Considerations, for additional information.
7. HANDLING AND STORAGE

Precautions for 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 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.

Do not store with the following product types: Strong oxidizing agents.

Unsuitable materials for containers: None known.

8. EXPOSURE CONTROLS/PERSOANAL PROTECTION

Control parameters
If exposure limits exist, they are listed below. If no exposure limits are displayed, then no values are applicable.

Consult local authorities for recommended exposure limits.

<table>
<thead>
<tr>
<th>Component</th>
<th>Regulation</th>
<th>Type of listing</th>
<th>Value/Notation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Triisopropanolamine</td>
<td>Dow IHG</td>
<td>TWA</td>
<td>10 mg/m3</td>
</tr>
</tbody>
</table>

RECOMMENDATIONS IN THIS SECTION ARE FOR MANUFACTURING, COMMERCIAL BLENDING AND PACKAGING WORKERS. APPLICATORS AND HANDLERS SHOULD SEE THE PRODUCT LABEL FOR PROPER PERSONAL PROTECTIVE EQUIPMENT AND CLOTHING.

Exposure controls
Engineering controls: 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.

Individual protection measures
   Eye/face protection: Use safety glasses (with side shields).
   Skin protection
     Hand protection: Chemical protective gloves should not be needed when handling this material. Consistent with general hygienic practice for any material, skin contact should be minimized.
     Other protection: No precautions other than clean body-covering clothing should be needed.
   Respiratory protection: Respiratory protection should be worn when there is a potential 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 approved air-purifying respirator. The following should be effective types of air-purifying respirators: Organic vapor cartridge with a particulate pre-filter.
## 9. PHYSICAL AND CHEMICAL PROPERTIES

<table>
<thead>
<tr>
<th>Property</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Appearance</td>
<td>Liquid</td>
</tr>
<tr>
<td>Physical state</td>
<td>Liquid</td>
</tr>
<tr>
<td>Color</td>
<td>Brown</td>
</tr>
<tr>
<td>Odor</td>
<td>Mild</td>
</tr>
<tr>
<td>Odor Threshold</td>
<td>No data available</td>
</tr>
<tr>
<td>pH</td>
<td>7.3 pH Electrode</td>
</tr>
<tr>
<td>Melting point/range</td>
<td>No data available</td>
</tr>
<tr>
<td>Freezing point</td>
<td>&lt; -10 °C</td>
</tr>
<tr>
<td>Boiling point (760 mmHg)</td>
<td>No data available</td>
</tr>
<tr>
<td>Flash point</td>
<td>closed cup &gt; 100 °C Pensky-Martens Closed Cup ASTM D 93</td>
</tr>
<tr>
<td>Evaporation Rate (Butyl Acetate = 1)</td>
<td>No data available</td>
</tr>
<tr>
<td>Flammability (solid, gas)</td>
<td>Not Applicable</td>
</tr>
<tr>
<td>Lower explosion limit</td>
<td>No data available</td>
</tr>
<tr>
<td>Upper explosion limit</td>
<td>No data available</td>
</tr>
<tr>
<td>Vapor Pressure</td>
<td>No data available</td>
</tr>
<tr>
<td>Relative Vapor Density (air = 1)</td>
<td>No data available</td>
</tr>
<tr>
<td>Relative Density (water = 1)</td>
<td>No data available</td>
</tr>
<tr>
<td>Water solubility</td>
<td>Soluble</td>
</tr>
<tr>
<td>Partition coefficient: n-octanol/water</td>
<td>No data available</td>
</tr>
<tr>
<td>Auto-ignition temperature</td>
<td>none below 400 degC</td>
</tr>
<tr>
<td>Decomposition temperature</td>
<td>No data available</td>
</tr>
<tr>
<td>Dynamic Viscosity</td>
<td>12.2 cP at 20 °C EPA OPPTS 830.7100 (Viscosity)</td>
</tr>
<tr>
<td>Kinematic Viscosity</td>
<td>No data available</td>
</tr>
<tr>
<td>Explosive properties</td>
<td>No data available</td>
</tr>
<tr>
<td>Oxidizing properties</td>
<td>No data available</td>
</tr>
<tr>
<td>Liquid Density</td>
<td>1.1401 g/mL at 20 °C Digital density meter</td>
</tr>
<tr>
<td>Molecular weight</td>
<td>No data available</td>
</tr>
<tr>
<td>Surface tension</td>
<td>54.4 mN/m at 20 °C</td>
</tr>
</tbody>
</table>

**NOTE:** The physical data presented above are typical values and should not be construed as a specification.

## 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 reactions:** None known.
No hazards to be specially mentioned.

**Conditions to avoid:** None known.
Incompatible materials: Avoid contact with: Strong oxidizers.

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

11. TOXICOLOGICAL INFORMATION

Toxicological information appears in this section when such data is available.

Acute toxicity
  Acute oral toxicity
  Very low toxicity if swallowed. Harmful effects not anticipated from swallowing small amounts.

  As product:
  LD50, Rat, male and female, > 5,000 mg/kg

  Acute dermal toxicity
  Prolonged skin contact is unlikely to result in absorption of harmful amounts.

  As product:
  LD50, Rat, male and female, > 5,000 mg/kg

  Acute inhalation toxicity
  No adverse effects are anticipated from single exposure to mist. Based on the available data, respiratory irritation was not observed.

  As product:
  LC50, Rat, male and female, 4 Hour, dust/mist, > 5.79 mg/l

Skin corrosion/irritation
Essentially nonirritating to skin.

Serious eye damage/eye irritation
Essentially nonirritating to eyes.

Sensitization
Did not cause allergic skin reactions when tested in guinea pigs.

For respiratory sensitization:
No relevant data found.

Specific Target Organ Systemic Toxicity (Single Exposure)
Evaluation of available data suggests that this material is not an STOT-SE toxicant.

Specific Target Organ Systemic Toxicity (Repeated Exposure)
Based on available data, repeated exposures are not anticipated to cause significant adverse effects.

Carcinogenicity
For similar active ingredient(s). Aminopyralid. Did not cause cancer in laboratory animals.

Teratogenicity
Did not cause birth defects or any other fetal effects in laboratory animals.

Reproductive toxicity
For similar active ingredient(s). Aminopyralid. In animal studies, did not interfere with reproduction.
Mutagenicity
In vitro genetic toxicity studies were negative. Animal genetic toxicity studies were negative.

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

12. ECOLOGICAL INFORMATION

Ecotoxicological information appears in this section when such data is available.

Toxicity

**Acute toxicity to fish**
LC50, Oncorhynchus mykiss (rainbow trout), static test, 96 Hour, 360 mg/l, OECD Test Guideline 203 or Equivalent

LC50, Cyprinodon variegatus (sheepshead minnow), static test, 96 Hour, > 100 mg/l

**Acute toxicity to aquatic invertebrates**
EC50, Daphnia magna (Water flea), static test, 48 Hour, > 460 mg/l

LC50, saltwater mysid Mysisopsis bahia, static test, 96 Hour, > 104 mg/l

**Acute toxicity to algae/aquatic plants**
For similar material(s):
Material is highly toxic to aquatic organisms on an acute basis (LC50/EC50 between 0.1 and 1 mg/L in the most sensitive species tested).

For similar material(s):
ErC50, Myriophyllum spicatum, 14 d, 0.363 mg/l

For similar material(s):
NOEC, Myriophyllum spicatum, 14 d, 0.0639 mg/l

For similar material(s):
ErC50, Pseudokirchneriella subcapitata (green algae), 72 Hour, > 1,000 mg/l

**Toxicity to Above Ground Organisms**
Material is practically non-toxic to birds on an acute basis (LD50 > 2000 mg/kg). Material is practically non-toxic to birds on a dietary basis (LC50 > 5000 ppm).

dietary LC50, Colinus virginianus (Bobwhite quail), > 21422mg/kg diet.

oral LD50, Colinus virginianus (Bobwhite quail), > 10,000 ppm

oral LD50, Apis mellifera (bees), > 460micrograms/bee

contact LD50, Apis mellifera (bees), > 460micrograms/bee

**Toxicity to soil-dwelling organisms**
LC50, Eisenia fetida (earthworms), 14 d, survival, > 10,000 mg/kg
Persistence and degradability

**Aminopyralid Triisopropanolamine Salt**

**Biodegradability:** For similar material(s): Aminopyralid. Material is not readily biodegradable according to OECD/EEC guidelines.

**Triisopropanolamine**

**Biodegradability:** Biodegradation under aerobic static laboratory conditions is high (BOD20 or BOD28/ThOD > 40%). Biodegradation rate may increase in soil and/or water with acclimation. Material is not readily biodegradable according to OECD/EEC guidelines.

- 10-day Window: Fail
- **Biodegradation:** 0 %
- **Exposure time:** 28 d
- **Method:** OECD Test Guideline 301F or Equivalent

**Theoretical Oxygen Demand:** 2.35 mg/mg

**Photodegradation**

- **Test Type:** Half-life (indirect photolysis)
- **Sensitization:** OH radicals
- **Atmospheric half-life:** 3 Hour
- **Method:** Estimated.

**Balance**

**Biodegradability:** No relevant data found.

Bioaccumulative potential

**Aminopyralid Triisopropanolamine Salt**

**Bioaccumulation:** For similar active ingredient(s). Aminopyralid. Bioconcentration potential is low (BCF < 100 or Log Pow < 3).

**Triisopropanolamine**

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

- **Partition coefficient: n-octanol/water (log Pow):** -0.015 at 23 °C Measured
- **Bioconcentration factor (BCF):** < 0.57 Fish 42 d Measured

**Balance**

**Bioaccumulation:** No relevant data found.

Mobility in soil

**Aminopyralid Triisopropanolamine Salt**

For similar active ingredient(s).

Aminopyralid.

Potential for mobility in soil is very high (Koc between 0 and 50).

**Triisopropanolamine**

Potential for mobility in soil is very high (Koc between 0 and 50).

**Partition coefficient (Koc):** 10 Estimated.

**Balance**

No relevant data found.
13. DISPOSAL CONSIDERATIONS

Disposal methods: 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.

14. TRANSPORT INFORMATION

TDG
Proper shipping name: ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (Aminopyralid Triisopropanolamine Salt)
UN number: UN 3082
Class: 9
Packing group: III
Marine pollutant: Aminopyralid Triisopropanolamine Salt

Classification for SEA transport (IMO-IMDG):
Proper shipping name: ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (Aminopyralid Triisopropanolamine Salt)
UN number: UN 3082
Class: 9
Packing group: III
Marine pollutant: Aminopyralid Triisopropanolamine Salt
Transport in bulk: Consult IMO regulations before transporting ocean bulk according to Annex I or II of MARPOL 73/78 and the IBC or IGC Code

Classification for AIR transport (IATA/ICAO):
Proper shipping name: Environmentally hazardous substance, liquid, n.o.s. (Aminopyralid Triisopropanolamine Salt)
UN number: UN 3082
Class: 9
Packing group: III

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.

NOT REGULATED PER TDG EXEMPTION 1.45.1 FOR ROAD OR RAIL

This information is not intended to convey all specific regulatory or operational requirements/information relating to this product. Transportation classifications may vary by container volume and may be influenced by regional or country variations in regulations. Additional transportation system information can be obtained through an authorized sales or customer service representative. It is the responsibility of the transporting organization to follow all applicable laws, regulations and rules relating to the transportation of the material.
15. REGULATORY INFORMATION

Hazardous Products Act Information: WHMIS Classification
This product is exempt under WHMIS.

National Fire Code of Canada
Not applicable

Canadian Domestic Substances List (DSL)
This product contains chemical substance(s) exempt from CEPA DSL Inventory requirements. It is regulated as a pesticide subject to Pest Control Products Act (PCPA) requirements.

Pest Control Products Act (PCPA) Registration Number: 28517

16. OTHER INFORMATION

Hazard Rating System
NFPA

<table>
<thead>
<tr>
<th>Health</th>
<th>Flammability</th>
<th>Instability</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>1</td>
<td>0</td>
</tr>
</tbody>
</table>

Revision
Identification Number: 264158 / A215 / Issue Date: 06/30/2020 / Version: 8.0
DAS Code: GF-871
Most recent revision(s) are noted by the bold, double bars in left-hand margin throughout this document.

Legend

<table>
<thead>
<tr>
<th>Abbreviation</th>
<th>Full Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Dow IHG</td>
<td>Dow Industrial Hygiene Guideline</td>
</tr>
<tr>
<td>TWA</td>
<td>Time weighted average</td>
</tr>
</tbody>
</table>

Full text of other abbreviations
AICS - Australian Inventory of Chemical Substances; ASTM - American Society for the Testing of Materials; bw - Body weight; CERCLA - Comprehensive Environmental Response, Compensation, and Liability Act; CMR - Carcinogen, Mutagen or Reproductive Toxicant; DIN - Standard of the German Institute for Standardisation; DOT - Department of Transportation; DSL - Domestic Substances List (Canada); ECx - Concentration associated with x% response; EHS - Extremely Hazardous Substance; ELx - Loading rate associated with x% response; EmS - Emergency Schedule; ENCS - Existing and New Chemical Substances (Japan); ErCx - Concentration associated with x% growth rate response; ERG - Emergency Response Guide; GHS - Globally Harmonized System; GLP - Good Laboratory Practice; HMIS - Hazardous Materials Identification System; IARC - International Agency for Research on Cancer; 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; ICAO - International Civil Aviation Organization; IECSC - Inventory of Existing Chemical Substances in China; IMDG - International Maritime Dangerous Goods; IMO - International Maritime Organization; ISHL - Industrial Safety and Health Law (Japan); ISO - International Organisation for Standardization; KECI - Korea Existing Chemicals Inventory; 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; MSHA - Mine Safety and Health Administration; n.o.s. - Not Otherwise Specified; NFPA - National Fire Protection Association; NO(A)EC - No Observed (Adverse) Effect Concentration; NO(A)EL - No Observed (Adverse) Effect Level; NOELR - No Observable Effect Loading Rate; NTP - National Toxicology Program; NZIoC - New Zealand Inventory of Chemicals; OECD - Organization for Economic Co-operation and Development; OPPTS - Office of Chemical Safety and Pollution Prevention; PBT - Persistent, Bioaccumulative and Toxic substance; PICCS - Philippines Inventory of Chemicals and Chemical Substances; (Q)SAR - (Quantitative) Structure Activity Relationship; RCRA -
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.

DOW AGROSCIENTES CANADA INC. urges each customer or recipient of this (M)SDS to study it carefully and consult appropriate expertise, as necessary or appropriate, to become aware of and understand the data contained in this (M)SDS and any hazards associated with the product. The information herein is provided in good faith and believed to be accurate as of the effective date shown above. However, no warranty, express or implied, is given. Regulatory requirements are subject to change and may differ between various locations. It is the buyer's/user's responsibility to ensure that his activities comply with all federal, state, provincial or local laws. The information presented here pertains only to the product as shipped. Since conditions for use of the product are not under the control of the manufacturer, it is the buyer's/user's duty to determine the conditions necessary for the safe use of this product. Due to the proliferation of sources for information such as manufacturer-specific (M)SDSs, we are not and cannot be responsible for (M)SDSs obtained from any source other than ourselves. If you have obtained an (M)SDS from another source or if you are not sure that the (M)SDS you have is current, please contact us for the most current version.