

# SAFETY DATA SHEET

CORTEVA AGRISCIENCE CANADA COMPANY

# Product name: Sortan<sup>™</sup> IS Herbicide

Issue Date: 04/28/2021

CORTEVA AGRISCIENCE CANADA COMPANY 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.

# **1. IDENTIFICATION**

Product name: Sortan<sup>™</sup> IS Herbicide

Recommended use of the chemical and restrictions on use Identified uses: Herbicide Uses advised against: Do not use product for anything outside of the above specified uses.

# COMPANY IDENTIFICATION

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

Customer Information Number	:	800-667-3852
E-mail address	:	solutions@corteva.com
EMERGENCY TELEPHONE		
24-Hour Emergency Contact	:	1-888-226-8832
Local Emergency Contact	:	1-888-226-8832

# 2. HAZARDS IDENTIFICATION

## Hazard classification

This product is hazardous under the criteria of the Hazardous Products Regulation (HPR) as implemented under the Workplace Hazardous Materials Information System (WHMIS 2015). Skin sensitization - Sub-category 1B

#### Label elements Hazard pictograms



Signal Word: WARNING!

#### Hazards

May cause an allergic skin reaction.

# **Precautionary statements**

# Prevention

Avoid breathing dust/ fume/ gas/ mist/ vapours/ spray. Contaminated work clothing should not be allowed out of the workplace. Wear protective gloves.

# Response

IF ON SKIN: Wash with plenty of water. If skin irritation or rash occurs: Get medical advice/ attention. Take off contaminated clothing and wash it before reuse.

# Disposal

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

# Other hazards

No data available

# **3. COMPOSITION/INFORMATION ON INGREDIENTS**

This product is a mixture. <b>Component</b>	CASRN	Concentration
Rimsulfuron	122931-48-0	20.0%
Kaolin	1332-58-7	>= 10.0 - < 20.0 %
Isoxadifen-ethyl	163520-33-0	>= 3.0 - < 10.0 %
Lignin, Alkali, Reaction Products with Disodium Sulfite and Formaldehyde	105859-97-0	>= 3.0 - < 10.0 %
Formaldehyde- naphthalenesulfonic acid condensatesodium salt	9084-06-4	>= 3.0 - < 10.0 %
Sucrose	57-50-1	>= 1.0 - < 3.0 %

# 4. FIRST AID MEASURES

## Description of first aid measures

# General advice:

Have the product container or label with you when calling a poison control center or doctor, or going for treatment. Information presented in Section 4 conforms to the requirements of the Hazardous Products Regulations (HPR) and WHMIS 2015. See Section 15 for applicable information conforming to the requirements of the Pest Management Regulatory Agency (PMRA).

**Inhalation:** Move to fresh air. If not breathing, if breathing is irregular or if respiratory arrest occurs, provide artificial respiration or oxygen by trained personnel. Call a poison control center or doctor for treatment advice.

**Skin contact:** Take off all contaminated clothing immediately. Rinse skin immediately with plenty of water for 15-20 minutes. Call a poison control center or doctor for treatment advice.

**Eye contact:** Hold eye open and rinse slowly and gently with water for 15-20 minutes. Remove contact lenses, if present, after the first 5 minutes, then continue rinsing eye. Call a poison control center or doctor for treatment advice.

**Ingestion:** Call a poison control center or doctor for treatment advice. Have person sip a glass of water if able to swallow. DO NOT induce vomiting unless directed to do so by a physician or poison control center. Never give anything by mouth to an unconscious person.

## Most important symptoms and effects, both acute and delayed:

No cases of human intoxication are known and the symptoms of experimental intoxication are not known.

# Indication of any immediate medical attention and special treatment needed Notes to physician: Treat symptomatically.

# **5. FIRE-FIGHTING MEASURES**

Suitable extinguishing media: Water spray Alcohol-resistant foam

Unsuitable extinguishing media: None known.

#### Special hazards arising from the substance or mixture Hazardous combustion products: No data available

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

# 6. ACCIDENTAL RELEASE MEASURES

**Personal precautions, protective equipment and emergency procedures:** Avoid dust formation. Avoid breathing dust. 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. 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, waterways and/or groundwater. See Section 12, Ecological Information.

Methods and materials for containment and cleaning up: Local or national regulations may apply to releases and disposal of this material, as well as those materials and items employed in. Pick up and arrange disposal without creating dust. 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. Sweep up or vacuum up spillage and collect in suitable container for disposal. See Section 13, Disposal Considerations, for additional information.

# 7. HANDLING AND STORAGE

Precautions for safe handling: Persons susceptible to skin sensitisation problems or asthma, allergies, chronic or recurrent respiratory disease should not be employed in any process in which this mixture is being used. Do not breathe vapours/dust. Do not smoke. 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 vapour or mist. Do not swallow. Avoid contact with skin and eyes. 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 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/PERSONAL PROTECTION

# **Control parameters**

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

Component	Regulation	
Consult local authorities for recommended exposure limits.		

Component	Regulation	Type of listing	Value/Notation
Kaolin	ACGIH	TWA Respirable	2 mg/m3
		particulate matter	
	CA AB OEL	TWA Respirable	2 mg/m3
	CA BC OEL	TWA Respirable	2 mg/m3
	CA QC OEL	TWAEV respirable	5 mg/m3
		dust	
Sucrose	ACGIH	TWA	10 mg/m3
	CA AB OEL	TWA	10 mg/m3
	CA QC OEL	TWAEV	10 mg/m3
	CA BC OEL	TWA Total dust	10 mg/m3
	CA BC OEL	TWA respirable dust	3 mg/m3
		fraction	

# Exposure controls

Engineering controls: Ensure adequate ventilation, especially in confined areas.

Information presented in Section 8 conforms to the requirements of theHazardous Products Regulations (HPR) and WHMIS 2015. See Section 15 forapplicable information conforming to the requirements of the PestManagement Regulatory Agency (PMRA).

**Hygiene measures:** Wash hands thoroughly with soap and water after handling and before eating, drinking, chewing gum, using tobacco, or using the toilet. Remove clothing/PPE immediately if material gets inside. Wash thoroughly and put on clean clothing. Remove personal protective equipment immediately after handling this product.

**Protective measures:** Follow manufacturer's instructions for cleaning/maintaining PPE. If no such instructions for washables exist, use detergent and hotwater. Keep and wash PPE separately from other laundry. Discard clothing and other absorbent materials that have been drenched or heavily contaminated with this product. Do not reuse them.

# Individual protection measures

**Eye/face protection:** Wear protective eyewear to prevent contact with this substance. **Skin protection** 

Hand protection: Use gloves chemically resistant to this material. Examples of preferred glove barrier materials include: Neoprene. Nitrile/butadiene rubber ("nitrile" or "NBR"). 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.

**Other protection:** Applicators and other handlers must wear: Long sleeved shirt and long pants Shoes plus socks

PPE required for early entry to treated areas that is permitted under the Worker Protection Standard and that involves contact with anything that has been treated, such as plants, soil, or water, is: Coveralls Chemical resistant gloves made of any waterproof material Shoes plus socks

**Respiratory protection:** Where there is potential for airborne exposures in excess of applicable limits, wear approved respiratory protection with dust/mist cartridge.

# 9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance	
Physical state	granules
Color	No data available
Odor	No data available
Odor Threshold	No data available
рН	No data available
Melting point/range	No data available
Freezing point	No data available
Boiling point (760 mmHg)	No data available
Flash point	No data available
Evaporation Rate (Butyl Acetate = 1)	No data available
Flammability (solid, gas)	The product is not flammable.
Lower explosion limit	No data available
Upper explosion limit	No data available

Vapor Pressure	No data available
Relative Vapor Density (air = 1)	No data available
Relative Density (water = 1)	No data available
Water solubility	No data available
Partition coefficient: n- octanol/water	No data available
Auto-ignition temperature	No data available
Decomposition temperature	No data available
Kinematic Viscosity	No data available
Explosive properties	No data available
Oxidizing properties	The substance or mixture is not classified as oxidizing.
Molecular weight	No data available

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: None.

## Hazardous decomposition products

No hazardous decomposition products are known.

# 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: Single dose oral LD50 has not been determined.

For the active ingredient(s): LD50, Rat, > 5,000 mg/kg

## Acute dermal toxicity

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

As product: The dermal LD50 has not been determined.

For the active ingredient(s): LD50, Rabbit, > 2,000 mg/kg No deaths occurred at this concentration.

## Acute inhalation toxicity

No adverse effects are anticipated from single exposure to dust.

As product: The LC50 has not been determined.

For the active ingredient(s): LC50, Rat, 4 Hour, dust/mist, > 5.4 mg/l No deaths occurred at this concentration.

#### Skin corrosion/irritation

Brief contact may cause slight skin irritation with local redness.

#### Serious eye damage/eye irritation

May cause slight temporary eye irritation.

#### Sensitization

For skin sensitization: For the active ingredient(s): Has caused allergic skin reactions when tested in guinea pigs.

For respiratory sensitization: No relevant data found.

#### Specific Target Organ Systemic Toxicity (Single Exposure)

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

## Specific Target Organ Systemic Toxicity (Repeated Exposure)

For the active ingredient(s): In animals, effects have been reported on the following organs: Liver

## Carcinogenicity

For the active ingredient(s): Did not cause cancer in laboratory animals.

## Teratogenicity

For the active ingredient(s): Development effects were not observed in laboratory animals.

#### **Reproductive toxicity**

For the active ingredient(s): In animal studies, did not interfere with reproduction.

#### Mutagenicity

For the active ingredient(s): Tests on bacterial or mammalian cell cultures did not show mutagenic effects. Animal testing did not show any mutagenic effects.

#### 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

## **Rimsulfuron**

## Acute toxicity to fish

LC50, Oncorhynchus mykiss (rainbow trout), 96 Hour, > 390 mg/l LC50, Lepomis macrochirus (Bluegill sunfish), 96 Hour, > 390 mg/l

#### Acute toxicity to aquatic invertebrates

EC50, Daphnia magna (Water flea), 48 Hour, > 360 mg/l

## Acute toxicity to algae/aquatic plants

EbC50, Pseudokirchneriella subcapitata (green algae), 72 Hour, 1.2 mg/l EC50, Lemna gibba (gibbous duckweed), 14 d, Number of fronds, 0.0023 mg/l EC50, Lemna gibba (gibbous duckweed), 14 d, Biomass, 0.0017 mg/l EbC50, Selenastrum capricornutum (green algae), 120 Hour, 1.6 mg/l EC50, Lemna gibba (gibbous duckweed), 7 d, > 0.21 mg/l ErC50, Lemna gibba (gibbous duckweed), 14 d, 0.00066 mg/l

# Chronic toxicity to fish

NOEC, Oncorhynchus mykiss (rainbow trout), 90 d, 110 mg/l

#### Chronic toxicity to aquatic invertebrates

NOEC, Daphnia magna (Water flea), 21 d, 0.82 mg/l

## **Toxicity to Above Ground Organisms**

LD50, Colinus virginianus (Bobwhite quail), Acute oral toxicity, > 2,250 mg/kg LC50, Colinus virginianus (Bobwhite quail), 8 d, Acute contact toxicity, > 5,620 mg/kg LD50, Anas platyrhynchos (Mallard duck), Acute oral toxicity, > 2,000 mg/kg LC50, Anas platyrhynchos (Mallard duck), 8 d, Acute contact toxicity, > 5,620 mg/kg Apis mellifera (bees), Acute contact toxicity, > 100µg/bee Apis mellifera (bees), Acute oral toxicity, > 1,000 ppm

## Toxicity to soil-dwelling organisms

LC50, Eisenia fetida (earthworms), > 1,000 mg/kg

#### <u>Kaolin</u>

# Acute toxicity to fish

Not expected to be acutely toxic to aquatic organisms.

## Isoxadifen-ethyl

#### Acute toxicity to fish

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).

LC50, Oncorhynchus mykiss (rainbow trout), flow-through, 96 Hour, 0.34 mg/l

LC50, Lepomis macrochirus (Bluegill sunfish), flow-through, 96 Hour, 0.22 mg/l

## Chronic toxicity to fish

NOEC, Oncorhynchus mykiss (rainbow trout), flow-through, 28 d, 0.42 mg/l Oncorhynchus mykiss (rainbow trout), flow-through, 28 d, Growth rate inhibition, 0.65 mg/l

## Chronic toxicity to aquatic invertebrates

NOEC, Daphnia magna (Water flea), semi-static test, 21 d, 0.38 mg/l

## Lignin, Alkali, Reaction Products with Disodium Sulfite and Formaldehyde

# Acute toxicity to fish

No relevant data found.

#### Formaldehyde-naphthalenesulfonic acid condensatesodium salt

#### Acute toxicity to fish

Material is slightly toxic to aquatic organisms on an acute basis (LC50/EC50 between 10 and 100 mg/L in the most sensitive species tested).

LC50, Fathead minnow (Pimephales promelas), Static, 96 Hour, 100 mg/l

## Acute toxicity to aquatic invertebrates

EC50, Daphnia magna (Water flea), Static, 48 Hour, 71 mg/l

## <u>Sucrose</u>

#### Acute toxicity to fish

Material is practically non-toxic to fish on an acute basis (LC50 > 100 mg/L). LC50, Pimephales promelas (fathead minnow), static test, 72 Hour, > 100 mg/l, Method Not Specified.

## Persistence and degradability

#### **Rimsulfuron**

Biodegradability: Not readily biodegraded.

## <u>Kaolin</u>

**Biodegradability:** Biodegradation is not applicable.

#### Lignin, Alkali, Reaction Products with Disodium Sulfite and Formaldehyde Biodegradability: No relevant data found.

# Formaldehyde-naphthalenesulfonic acid condensatesodium salt Biodegradability: Material is not readily biodegradable according to OECD/EEC guidelines.

# Sucrose

**Biodegradability:** Material is expected to be readily biodegradable. Biodegradation under aerobic static laboratory conditions is high (BOD20 or BOD28/ThOD > 40%). Degradation is expected in the atmospheric environment within minutes to hours.

## Theoretical Oxygen Demand: 1.12 mg/mg

## Photodegradation

**Test Type:** Half-life (indirect photolysis) **Sensitization:** OH radicals **Atmospheric half-life:** 1.18 Hour **Method:** Estimated.

#### **Bioaccumulative potential**

## **Rimsulfuron**

Bioaccumulation: Does not bioaccumulate. No relevant data found.

## <u>Kaolin</u>

Bioaccumulation: Partitioning from water to n-octanol is not applicable.

#### Isoxadifen-ethyl

Partition coefficient: n-octanol/water(log Pow): 3.8 at 30 °C

#### Lignin, Alkali, Reaction Products with Disodium Sulfite and Formaldehyde Bioaccumulation: No relevant data found.

#### Formaldehyde-naphthalenesulfonic acid condensatesodium salt Bioaccumulation: No relevant data found.

## <u>Sucrose</u>

**Bioaccumulation:** Bioconcentration potential is low (BCF < 100 or Log Pow < 3). Potential for mobility in soil is very high (Koc between 0 and 50). Bioconcentration potential is low (BCF < 100 or Log Pow < 3).

Partition coefficient: n-octanol/water(log Pow): -3.7 - -3.67 Estimated. Bioconcentration factor (BCF): 3 Estimated.

#### Mobility in soil

#### **Rimsulfuron**

No relevant data found.

#### Kaolin

No relevant data found.

#### Lignin, Alkali, Reaction Products with Disodium Sulfite and Formaldehyde No relevant data found.

Formaldehyde-naphthalenesulfonic acid condensatesodium salt

No relevant data found.

## Sucrose

Potential for mobility in soil is very high (Koc between 0 and 50). **Partition coefficient (Koc):** 3.16 Estimated.

# **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**

-	
L	DG

Proper shipping name UN number Class Packing group	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S. UN 3077 9 III
Classification for SEA transport (I	MO-IMDG):
Proper shipping name	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S.(Isoxadifen-ethyl, Rimsulfuron)
UN number	UN 3077
Class	9
Packing group	III
Marine pollutant	Isoxadifen-ethyl, Rimsulfuron
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, solid,
	n.o.s.(Isoxadifen-ethyl, Rimsulfuron)
UN number	UN 3077
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**

## 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**

Pest Control Products Act (PCPA) Registration Number: 32627

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

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

PCPA Label Hazard Communications: Read the label and booklet before using. Keep out of reach of children.

Warning, contains the allergens milk and sulfites Warning, contains phenol at maximum of 0.10 % w/w This product is toxic to: Non-target terrestrial plants Aquatic organisms

# **16. OTHER INFORMATION**

## Revision

Identification Number: 011000007960 / Issue Date: 04/28/2021 / Version: 6.0

Most recent revision(s) are noted by the bold, double bars in left-hand margin throughout this document. **Legend** 

ACGIH	USA. ACGIH Threshold Limit Values (TLV)
CA AB OEL	Canada. Alberta, Occupational Health and Safety Code (table 2: OEL)

CA BC OEL	Canada. British Columbia OEL
CA QC OEL	Québec. Regulation respecting occupational health and safety, Schedule 1, Part 1:
	Permissible exposure values for airborne contaminants
TWA	8-hour time weighted average
TWAEV	Time-weighted average exposure value

# Full text of other abbreviations

AIIC - Australian Inventory of Industrial Chemicals; 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 - Resource Conservation and Recovery Act; REACH - Regulation (EC) No 1907/2006 of the European Parliament and of the Council concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals; RQ - Reportable Quantity; SADT - Self-Accelerating Decomposition Temperature; SARA - Superfund Amendments and Reauthorization Act; SDS - Safety Data Sheet; TCSI - Taiwan Chemical Substance Inventory; TSCA - Toxic Substances Control Act (United States); UN - United Nations; UNRTDG - United Nations Recommendations on the Transport of Dangerous Goods; vPvB - Very Persistent and Very Bioaccumulative

# **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.

CORTEVA AGRISCIENCE CANADA COMPANY 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.

CA