

# SAFETY DATA SHEET



## CORVUS® HERBICIDE

Version 1.1 / CDN  
102000031432

1/12  
Revision Date: 01/04/2023  
Print Date: 08/14/2024

### SECTION 1: IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY/UNDERTAKING

#### Product identifier

Trade name CORVUS® HERBICIDE  
Product code (UVP) 84945242  
SDS Number 102000031432

#### Relevant identified uses of the substance or mixture and uses advised against

Use Herbicide  
Restrictions on use See product label for restrictions.

#### Information on supplier

Supplier Bayer CropScience Inc  
#200, 160 Quarry Park Blvd, SE  
Calgary, Alberta T2C 3G3  
Canada  
Responsible Department Email: SDSINFO.BCS-NA@bayer.com

#### Emergency telephone no.

Emergency Telephone Number (24hr/ 7 days) 1-800-334-7577  
Product Information Telephone Number 1-888-283-6847

### SECTION 2: HAZARDS IDENTIFICATION

Classified in accordance with Part 2 of the Hazardous Products Regulations  
Reproductive toxicity: Category 2

Labelling in accordance with Part 3 of the Hazardous Products Regulations



Signal word: Warning

#### Hazard statements

Suspected of damaging fertility or the unborn child.

#### Precautionary statements

# SAFETY DATA SHEET



## CORVUS® HERBICIDE

Version 1.1 / CDN  
102000031432

2/12  
Revision Date: 01/04/2023  
Print Date: 08/14/2024

Obtain special instructions before use.  
Do not handle until all safety precautions have been read and understood.  
Wear protective gloves/ protective clothing/ eye protection/ face protection.  
IF exposed or concerned: Get medical advice/ attention.  
Store locked up.  
Dispose of contents/container in accordance with local regulation.

### Hazards Not Otherwise Classified (HNOC)

No physical hazards not otherwise classified.  
No health hazards not otherwise classified.

## SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

Hazardous Component Name	CAS-No.	Concentration % by weight
Isoxaflutole	141112-29-0	19.0
Cyprosulfamide	221667-31-8	12.5
Thiencarbazone-methyl	317815-83-1	7.6

## SECTION 4: FIRST AID MEASURES

### Description of first aid measures

<b>General advice</b>	When possible, have the product container or label with you when calling a poison control center or doctor or going for treatment.
<b>Inhalation</b>	Move to fresh air. If person is not breathing, call 911 or an ambulance, then give artificial respiration, preferably mouth-to-mouth if possible. Call a physician or poison control center immediately.
<b>Skin contact</b>	Take off contaminated clothing and shoes immediately. Wash off immediately with plenty of water for at least 15 minutes. Call a physician or poison control center immediately.
<b>Eye contact</b>	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 physician or poison control center immediately.
<b>Ingestion</b>	Call a physician or poison control center immediately. Rinse out mouth and give water in small sips to drink. 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. Do not leave victim unattended.

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

<b>Symptoms</b>	To date no symptoms are known.
<b>Indication of any immediate medical attention and special treatment needed</b>	
<b>Treatment</b>	Appropriate supportive and symptomatic treatment as indicated by the patient's condition is recommended.

# SAFETY DATA SHEET



## CORVUS® HERBICIDE

Version 1.1 / CDN  
102000031432

3/12  
Revision Date: 01/04/2023  
Print Date: 08/14/2024

### SECTION 5: FIREFIGHTING MEASURES

#### Extinguishing media

**Suitable** Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide.

**Unsuitable** High volume water jet

**Special hazards arising from the substance or mixture** In the event of fire the following may be released: Carbon monoxide (CO), Carbon dioxide (CO<sub>2</sub>), Nitrogen oxides (NO<sub>x</sub>), Sulphur dioxide (SO<sub>2</sub>), Hydrogen fluoride, Hydrogen cyanide (hydrocyanic acid)

#### Advice for firefighters

**Special protective equipment for firefighters** Firefighters should wear NIOSH approved self-contained breathing apparatus and full protective clothing. In the event of fire and/or explosion do not breathe fumes.

**Further information** Keep out of smoke. Fight fire from upwind position. Cool closed containers exposed to fire with water spray. Do not allow run-off from fire fighting to enter drains or water courses.

#### Specific hazards from the substance or mixture which can increase the fire

**Flash point** >100 °C

**Auto-ignition temperature** No data available

**Lower explosion limit** No data available

**Upper explosion limit** No data available

**Explosivity** Not explosive

### SECTION 6: ACCIDENTAL RELEASE MEASURES

#### Personal precautions, protective equipment and emergency procedures

**Precautions** Keep unauthorized people away. Isolate hazard area. Avoid contact with spilled product or contaminated surfaces.

#### Methods and materials for containment and cleaning up

**Methods for cleaning up** Soak up with inert absorbent material (e.g. sand, silica gel, acid binder, universal binder, sawdust). Collect and transfer the product into a properly labelled and tightly closed container. Clean contaminated floors and objects thoroughly, observing environmental regulations.

# SAFETY DATA SHEET



## CORVUS® HERBICIDE

Version 1.1 / CDN  
102000031432

4/12  
Revision Date: 01/04/2023  
Print Date: 08/14/2024

<b>Additional advice</b>	Use personal protective equipment. If the product is accidentally spilled, do not allow to enter soil, waterways or waste water canal. Do not allow product to contact non-target plants.
<b>Reference to other sections</b>	Information regarding safe handling, see section 7. Information regarding personal protective equipment, see section 8. Information regarding waste disposal, see section 13.

## SECTION 7: HANDLING AND STORAGE

### Precautions for safe handling

**Advice on safe handling** Handle and open container in a manner as to prevent spillage. Use only in area provided with appropriate exhaust ventilation.

**Advice on protection against fire and explosion** Keep away from heat and sources of ignition.

**Hygiene measures** Wash hands thoroughly with soap and water after handling and before eating, drinking, chewing gum, using tobacco, using the toilet or applying cosmetics.  
Remove Personal Protective Equipment (PPE) immediately after handling this product. Remove soiled clothing immediately and clean thoroughly before using again. Wash thoroughly and put on clean clothing.

### Conditions for safe storage, including any incompatibilities

**Requirements for storage areas and containers** Store in a cool, dry place and in such a manner as to prevent cross contamination with other crop protection products, fertilizers, food, and feed. Store in original container and out of the reach of children, preferably in a locked storage area. Keep away from direct sunlight. Protect from freezing.

**Advice on common storage** Keep away from food, drink and animal feedingstuffs.

## SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

### Control parameters

Components	CAS-No.	Control parameters	Update	Basis
Isoxaflutole	141112-29-0	0.6 mg/m <sup>3</sup> (TWA)		OES BCS*
Cyprosulfamide	221667-31-8	10 mg/m <sup>3</sup> (TWA)		OES BCS*
Thiencarbazone-methyl	317815-83-1	10 mg/m <sup>3</sup> (TWA)		OES BCS*

\*OES BCS: Internal Bayer AG, Crop Science Division "Occupational Exposure Standard"

### Exposure controls

### Personal protective equipment

# SAFETY DATA SHEET



## CORVUS® HERBICIDE

Version 1.1 / CDN  
102000031432

5/12  
Revision Date: 01/04/2023  
Print Date: 08/14/2024

In normal use and handling conditions please refer to the label and/or leaflet. In all other cases the following recommendations would apply.

<b>Respiratory protection</b>	When respirators are required, select NIOSH approved equipment based on actual or potential airborne concentrations and in accordance with the appropriate regulatory standards and/or industry recommendations.
<b>Hand protection</b>	Chemical-resistant gloves (barrier laminate, butyl rubber, nitrile rubber or Viton)
<b>Eye protection</b>	Safety glasses with side-shields
<b>Skin and body protection</b>	Wear long-sleeved shirt and long pants and shoes plus socks.
<b>General protective measures</b>	Follow manufacturer's instructions for cleaning/maintaining PPE. If no such instructions for washables, use detergent and warm/tepid water. Keep and wash PPE separately from other laundry.

## SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

### Information on basic physical and chemical properties

<b>Form</b>	suspension
<b>Colour</b>	white to light beige
<b>Odour</b>	slight
<b>Odour Threshold</b>	No data available
<b>pH</b>	1.5 - 3.0 (100 %) (23 °C)
<b>Melting point/range</b>	No data available
<b>Boiling Point</b>	No data available
<b>Flash point</b>	> 100 °C
<b>Flammability</b>	No data available
<b>Auto-ignition temperature</b>	No data available
<b>Thermal decomposition</b>	No data available
<b>Minimum ignition energy</b>	No data available
<b>Self-accelerating decomposition temperature (SADT)</b>	No data available
<b>Upper explosion limit</b>	No data available
<b>Lower explosion limit</b>	No data available
<b>Vapour pressure</b>	No data available
<b>Evaporation rate</b>	No data available

# SAFETY DATA SHEET



## CORVUS® HERBICIDE

Version 1.1 / CDN  
102000031432

6/12  
Revision Date: 01/04/2023  
Print Date: 08/14/2024

---

<b>Relative vapour density</b>	No data available
<b>Relative density</b>	No data available
<b>Density</b>	1.20 g/cm <sup>3</sup> (20 °C)
<b>Water solubility</b>	dispersible
<b>Partition coefficient: n-octanol/water</b>	Thiencarbazone-methyl: log Pow: -0.13 Isoxaflutole: log Pow: 2.32 (20 °C) Cyprosulfamide: log Pow: -0.8
<b>Viscosity, dynamic</b>	300 - 500 mPa.s (20 °C) Velocity gradient 20 /s 100 - 250 mPa.s (20 °C) Velocity gradient 100 /s
<b>Viscosity, kinematic</b>	No data available
<b>Oxidizing properties</b>	No data available
<b>Explosivity</b>	Not explosive
<b>Other information</b>	Further safety related physical-chemical data are not known.

---

## SECTION 10: STABILITY AND REACTIVITY

<b>Reactivity</b>	Stable under normal conditions.
<b>Chemical stability</b>	Stable under recommended storage conditions.
<b>Possibility of hazardous reactions</b>	No hazardous reactions when stored and handled according to prescribed instructions.
<b>Conditions to avoid</b>	Extremes of temperature and direct sunlight.
<b>Incompatible materials</b>	No incompatible materials known.
<b>Hazardous decomposition products</b>	No decomposition products expected under normal conditions of use.

---

## SECTION 11: TOXICOLOGICAL INFORMATION

<b>Exposure routes</b>	Eye contact, Skin contact, Ingestion, Inhalation
<b>Immediate Effects</b>	
<b>Eye</b>	May cause temporary eye irritation.

# SAFETY DATA SHEET



## CORVUS® HERBICIDE

Version 1.1 / CDN  
102000031432

7/12  
Revision Date: 01/04/2023  
Print Date: 08/14/2024

<b>  Skin</b>	May be harmful in contact with skin.
<b>  Ingestion</b>	May be harmful if swallowed.
<b>  Inhalation</b>	Not expected to produce significant adverse effects when recommended use instructions are followed.

### Information on toxicological effects

<b>Acute oral toxicity</b>	LD50 (Rat) > 5,000 mg/kg
<b>Acute inhalation toxicity</b>	LC50 (Rat) > 2.6 mg/l Exposure time: 4 h Determined in the form of liquid aerosol. Highest attainable concentration.
<b>Acute dermal toxicity</b>	LD50 (Rat) > 2,000 mg/kg
<b>Skin corrosion/irritation</b>	No skin irritation (Rabbit)
<b>Serious eye damage/eye irritation</b>	Mild eye irritation. (Rabbit)
<b>Respiratory or skin sensitisation</b>	Skin: Non-sensitizing. (Mouse) OECD Test Guideline 429, local lymph node assay (LLNA)

### Assessment STOT Specific target organ toxicity – single exposure

Thiencarbazone-methyl: Based on available data, the classification criteria are not met.  
Isoxaflutole: Based on available data, the classification criteria are not met.  
Cyprosulfamide: Based on available data, the classification criteria are not met.

### Assessment STOT Specific target organ toxicity – repeated exposure

Thiencarbazone-methyl did not cause specific target organ toxicity in experimental animal studies.  
Isoxaflutole caused specific target organ toxicity in experimental animal studies in the following organ(s): Liver, Thyroid. The observed effects do not appear to be relevant for humans.  
Cyprosulfamide did not cause specific target organ toxicity in experimental animal studies.

### Assessment mutagenicity

Thiencarbazone-methyl was not mutagenic or genotoxic in a battery of in vitro and in vivo tests.  
Isoxaflutole was not mutagenic or genotoxic in a battery of in vitro and in vivo tests.  
Cyprosulfamide was not mutagenic or genotoxic in a battery of in vitro and in vivo tests.

### Assessment carcinogenicity

Thiencarbazone-methyl was not carcinogenic in a lifetime feeding study in rats. Thiencarbazone-methyl caused at high dose levels an increased incidence of tumours in mice in the following organ(s): urinary bladder. The tumours seen with Thiencarbazone-methyl were caused through the chronic irritation due to the presence of bladder stones.  
Isoxaflutole caused at high dose levels an increased incidence of tumours in the following organ(s): Liver. The mechanism that triggers tumours in rodents and the type of tumours observed are not relevant to humans.  
Cyprosulfamide caused at high dose levels an increased incidence of tumours in the following organ(s): urinary bladder, Kidney. The tumours seen with Cyprosulfamide were caused through the chronic irritation due to the presence of bladder stones. The mechanism that triggers tumours in rodents is not relevant for the low exposures encountered under normal use conditions.

### ACGIH

# SAFETY DATA SHEET



## CORVUS® HERBICIDE

Version 1.1 / CDN  
102000031432

8/12  
Revision Date: 01/04/2023  
Print Date: 08/14/2024

---

None.

### NTP

None.

### IARC

None.

### ACGIH

None.

### NTP

None.

### IARC

None.

### OSHA

None.

### Assessment toxicity to reproduction

Thiencarbazone-methyl did not cause reproductive toxicity in a two-generation study in rats.  
Isoxaflutole did not cause reproductive toxicity in a two-generation study in rats.  
Cyprosulfamide did not cause reproductive toxicity in a two-generation study in rats.

### Assessment developmental toxicity

Thiencarbazone-methyl did not cause developmental toxicity in rats and rabbits.  
Isoxaflutole caused developmental toxicity only at dose levels toxic to the dams. Isoxaflutole caused a delayed ossification of foetuses. The developmental effects seen with Isoxaflutole are related to maternal toxicity.  
Cyprosulfamide did not cause developmental toxicity in rats and rabbits.

### Aspiration hazard

Based on available data, the classification criteria are not met.

### Further information

Only acute toxicity studies have been performed on the formulated product.  
The non-acute information pertains to the active ingredient(s).

---

## SECTION 12: ECOLOGICAL INFORMATION

<b>Toxicity to fish</b>	LC50 (Oncorhynchus mykiss (rainbow trout)) > 100 mg/l Exposure time: 96 h
<b>Toxicity to aquatic invertebrates</b>	EC50 (Daphnia magna (Water flea)) > 100 mg/l Exposure time: 48 h
<b>Toxicity to aquatic plants</b>	EC50 (Raphidocelis subcapitata (freshwater green alga)) 25.3 mg/l

# SAFETY DATA SHEET



## CORVUS® HERBICIDE

Version 1.1 / CDN  
102000031432

9/12  
Revision Date: 01/04/2023  
Print Date: 08/14/2024

	Exposure time: 72 h
	EC50 (Lemna gibba (gibbous duckweed)) 0.0165 mg/l
	Exposure time: 7 d
<b>Biodegradability</b>	Thiencarbazone-methyl: Not rapidly biodegradable Isoxaflutole: Not rapidly biodegradable Cyprosulfamide: Not rapidly biodegradable
<b>Koc</b>	Thiencarbazone-methyl: Koc: 100 Isoxaflutole: Koc: 112 Cyprosulfamide: Koc: 8 - 75
<b>Bioaccumulation</b>	Thiencarbazone-methyl: Does not bioaccumulate. Isoxaflutole: Bioconcentration factor (BCF) 11 Does not bioaccumulate. Cyprosulfamide: Does not bioaccumulate.
<b>Mobility in soil</b>	Thiencarbazone-methyl: Moderately mobile in soils Isoxaflutole: Moderately mobile in soils Cyprosulfamide: Mobile in soils
<b>Results of PBT and vPvB assessment</b>	
<b>PBT and vPvB assessment</b>	Thiencarbazone-methyl: This substance is not considered to be persistent, bioaccumulative and toxic (PBT). This substance is not considered to be very persistent and very bioaccumulative (vPvB). Isoxaflutole: This substance is not considered to be persistent, bioaccumulative and toxic (PBT). This substance is not considered to be very persistent and very bioaccumulative (vPvB). Cyprosulfamide: This substance is not considered to be persistent, bioaccumulative and toxic (PBT). This substance is not considered to be very persistent and very bioaccumulative (vPvB).
<b>Additional ecological information</b>	No further ecological information is available.
<b>Environmental precautions</b>	Do not allow to get into surface water, drains and ground water. Do not contaminate surface or ground water by cleaning equipment or disposal of wastes, including equipment wash water. Apply this product as specified on the label.

---

## SECTION 13: DISPOSAL CONSIDERATIONS

### Waste treatment methods

**Product** Dispose in accordance with all local, state/provincial and federal regulations.

# SAFETY DATA SHEET



## CORVUS® HERBICIDE

Version 1.1 / CDN  
10200031432

10/12  
Revision Date: 01/04/2023  
Print Date: 08/14/2024

**Contaminated packaging** Consult state and local regulations regarding the proper disposal of container.  
Follow advice on product label and/or leaflet.

### SECTION 14: TRANSPORT INFORMATION

#### TDG

UN number	3082
Labels	9
Packaging group	III
Marine pollutant	Marine pollutant
Proper shipping name	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (ISOXAFLUTOLE)

#### 49CFR

Not dangerous goods / not hazardous material

#### IMDG

UN number	3082
Class	9
Packaging group	III
Marine pollutant	YES
Proper shipping name	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (ISOXAFLUTOLE SOLUTION)

#### IATA

UN number	3082
Class	9
Packaging group	III
Environm. Hazardous Mark	YES
Proper shipping name	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (ISOXAFLUTOLE SOLUTION )

This transportation information is not intended to convey all specific regulatory information relating to this product. It does not address regulatory variations due to package size or special transportation requirements.

**Further Information** Exempt from regulation when transported by road or rail, in accordance with TDG Regulations 1.45.1.  
This exemption provides that this product does not require dangerous goods shipping documentation or safety marks when transported on land by road or rail.

# SAFETY DATA SHEET



## CORVUS® HERBICIDE

Version 1.1 / CDN  
102000031432

11/12  
Revision Date: 01/04/2023  
Print Date: 08/14/2024

### SECTION 15: REGULATORY INFORMATION

#### PMRA Information:

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

This chemical is a pest control product regulated by Health Canada Pest Management Regulatory Agency and is subject to certain labelling requirements under the Pest Control Products Act. These requirements differ from the classification criteria and hazard information required for GHS-consistent safety data sheets. The following is the hazard information required on the pest control product label:

<b>Signal word:</b>	Caution!
<b>Hazard statements:</b>	Harmful if swallowed. Harmful if absorbed through skin. Keep out of the reach of children.

There are Canada-specific environmental requirements for handling, use, and disposal of this pest control product that are indicated on the label.

### SECTION 16: OTHER INFORMATION

#### Abbreviations and acronyms

49CFR	Code of Federal Regulations, Title 49
ACGIH	US. ACGIH Threshold Limit Values
ATE	Acute toxicity estimate
CAS-Nr.	Chemical Abstracts Service number
CERCLA	Comprehensive Environmental Response, Compensation, and Liability Act
EINECS	European inventory of existing commercial substances
ELINCS	European list of notified chemical substances
IARC	International Agency for Research on Cancer
IATA	International Air Transport Association
IMDG	International Maritime Dangerous Goods
N.O.S.	Not otherwise specified
NTP	US. National Toxicology Program (NTP) Report on Carcinogens
OECD	Organization for Economic Co-operation and Development
TDG	Transportation of Dangerous Goods
TWA	Time weighted average
UN	United Nations
WHO	World health organisation

# SAFETY DATA SHEET



## CORVUS® HERBICIDE

Version 1.1 / CDN  
102000031432

12/12  
Revision Date: 01/04/2023  
Print Date: 08/14/2024

### NFPA 704 (National Fire Protection Association):

Health - 1      Flammability - 1      Instability - 0      Others - none

### HMIS (Hazardous Materials Identification System, based on the Fourth Edition Ratings Guide)

Health - 1      Flammability - 1      Physical Hazard - 0      PPE -

0 = minimal hazard, 1 = slight hazard, 2 = moderate hazard, 3 = severe hazard, 4 = extreme hazard,  
\* = chronic health hazard

**Reason for Revision:** The following sections have been revised: Section 3: Composition / Information on Ingredients. Section 8: Exposure Controls / Personal Protection. Section 11: Toxicological Information. Section 15: Regulatory information. Reviewed and updated for general editorial purposes.

**Revision Date:** 01/04/2023

Changes since the last version are highlighted in the margin. This version replaces all previous versions.

This information is provided in good faith but without express or implied warranty. The customer assumes all responsibility for safety and use not in accordance with label instructions. The product names are registered trademarks of Bayer.