

SAFETY DATA SHEET



ROUNDUP® FOR LAWNS4

Version 1.0 / USA
102000057757

1/11
Revision Date: 02/22/2021
Print Date: 02/22/2021

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

Product identifier

Trade name ROUNDUP® FOR LAWNS4
SDS Number 102000057757
EPA Registration No. 2217-1009-71995

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 LP
800 North Lindbergh Blvd.
St. Louis, MO 63167
USA
Responsible Department Email: SDSINFO.BCS-NA@bayer.com

Emergency telephone number

Emergency Telephone Number (24hr/ 7 days) 1-800-334-7577
Product Information Telephone Number 1-866-99BAYER (1-866-992-2937)

SECTION 2: HAZARDS IDENTIFICATION

Classification in accordance with regulation HCS 29CFR §1910.1200

Eye irritation: Category 2B
Acute toxicity(Oral): Category 4

Labelling in accordance with regulation HCS 29CFR §1910.1200



Signal word: Warning

Hazard statements

Causes eye irritation.
Harmful if swallowed.

Precautionary statements

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Wash thoroughly after handling.
Do not eat, drink or smoke when using this product.
IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
If eye irritation persists: Get medical advice/ attention.
IF SWALLOWED: Call a POISON CENTER/doctor/physician if you feel unwell.
Rinse mouth.
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
Penoxsulam	219714-96-2	0.014
sulfentrazone	122836-35-5	0.014
2,4-D, dimethylamine salt	2008-39-1	0.146
Dicamba	1918-00-9	0.041
1,2-Benzisothiazol-3(2H)-one	2634-33-5	>0 – <0.1

Any concentration shown as a range is to protect confidentiality or is due to batch variation.

SECTION 4: FIRST AID MEASURES

Description of first aid measures

General advice	When possible, have the product container or label with you when calling a poison control center or doctor or going for treatment.
Inhalation	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.
Skin contact	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.
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 physician or poison control center immediately.
Ingestion	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

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Symptoms	Eye contact may provoke the following symptoms, Eye irritation, Redness, Watering of eyes.
Indication of any immediate medical attention and special treatment needed	
Treatment	Appropriate supportive and symptomatic treatment as indicated by the patient's condition is recommended.

SECTION 5: FIREFIGHTING MEASURES

Extinguishing media

Suitable	Water spray, Carbon dioxide (CO ₂), Foam, Dry chemical
Unsuitable	High volume water jet

Special hazards arising from the substance or mixture	Dangerous gases are evolved in the event of a fire., In the event of fire the following may be released:, Carbon dioxide (CO ₂), Carbon monoxide (CO)
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Advice for firefighters

Special protective equipment for firefighters	In the event of fire and/or explosion do not breathe fumes. Firefighters should wear NIOSH approved self-contained breathing apparatus and full protective clothing.
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Further information	Use appropriate extinguishing media for material that is supplying fuel. Fight fire from upwind position. Keep out of smoke. Cool closed containers exposed to fire with water spray. Contain the spread of the fire-fighting media. Do not allow run-off from fire fighting to enter drains or water courses.
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Flash point	> 100 °C
Auto-ignition temperature	No data available
Lower explosion limit	No data available
Upper explosion limit	No data available
Explosivity	No data available

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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.

Additional advice 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.

Reference to other sections 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 Use only in area provided with appropriate exhaust ventilation. Handle and open container in a manner as to prevent spillage.

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. Protect from freezing. Keep away from direct sunlight.

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

SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

Control parameters

No known occupational limit values.

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Exposure controls

Personal protective equipment

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

Respiratory protection	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.
Hand protection	Chemical-resistant gloves (barrier laminate, butyl rubber, nitrile rubber or Viton)
Eye protection	Tightly fitting safety goggles
Skin and body protection	Wear long-sleeved shirt and long pants and shoes plus socks.
General protective measures	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. Avoid inhalation of vapour or mist.

SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

Information on basic physical and chemical properties

Form	liquid, clear
Colour	light brown
Odour	amine-like
Odour Threshold	No data available
pH	7.0 - 8.5 (100 %) (23 °C)
Melting point/range	No data available
Boiling Point	No data available
Flash point	> 100 °C
Flammability	No data available
Auto-ignition temperature	No data available
Minimum ignition energy	No data available
Self-accelerating decomposition temperature (SADT)	No data available
Upper explosion limit	No data available
Lower explosion limit	No data available
Vapour pressure	No data available

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Evaporation rate	No data available
Relative vapour density	No data available
Relative density	No data available
Density	1.01 g/cm ³ (20 °C)
Water solubility	No data available
Partition coefficient: n-octanol/water	Penoxsulam: No data available 2,4-D dimethylamine salt: log Pow: 0.65 Dicamba: log Pow: -1.8
Viscosity, dynamic	144.8 - 226.2 mPa.s (22.8 °C)
Viscosity, kinematic	No data available
Oxidizing properties	No data available
Explosivity	No data available

SECTION 10: STABILITY AND REACTIVITY

Reactivity

Thermal decomposition	Stable under normal conditions.
Chemical stability	Stable under recommended storage conditions.
Possibility of hazardous reactions	No dangerous reaction known under conditions of normal use.
Conditions to avoid	Extremes of temperature and direct sunlight.
Incompatible materials	No incompatible materials known.
Hazardous decomposition products	No decomposition products expected under normal conditions of use.

SECTION 11: TOXICOLOGICAL INFORMATION

Exposure routes	Eye contact, Skin contact, Inhalation, Ingestion
Immediate Effects	
Eye	Causes eye irritation.
Skin	May be harmful if absorbed through skin.
Ingestion	Harmful if swallowed.
Information on toxicological effects	

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Acute oral toxicity	LD50 (Rat) 2,000 mg/kg
Acute inhalation toxicity	LC50 (Rat) > 5.0 mg/l Exposure time: 4 h
Acute dermal toxicity	LD50 (Rat) > 5,000 mg/kg
Skin corrosion/irritation	No skin irritation (Rabbit)
Serious eye damage/eye irritation	Irritating to eyes. (Rabbit)
Respiratory or skin sensitisation	Skin: Non-sensitizing. (Guinea pig)

Assessment STOT Specific target organ toxicity – single exposure

Penoxsulam: This information is not available.

2,4-D dimethylamine salt: Based on available data, the classification criteria are not met.

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

Assessment STOT Specific target organ toxicity – repeated exposure

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

2,4-D dimethylamine salt did not cause specific target organ toxicity in experimental animal studies.

Dicamba did not cause specific target organ toxicity in experimental animal studies.

Assessment mutagenicity

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

2,4-D dimethylamine salt was not mutagenic or genotoxic in a battery of in vitro and in vivo tests.

Dicamba was not mutagenic or genotoxic in a battery of in vitro and in vivo tests.

Assessment carcinogenicity

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

2,4-D was not carcinogenic in lifetime feeding studies in rats and mice.

Dicamba was not carcinogenic in lifetime feeding studies in rats and mice.

ACGIH

None.

NTP

None.

IARC

None.

OSHA

None.

Assessment toxicity to reproduction

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

2,4-D did not cause reproductive toxicity in a two-generation study in rats.

Dicamba did not cause reproductive toxicity in a two-generation study in rats.

Assessment developmental toxicity

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Penoxsulam: Based on available data, the classification criteria are not met.
2,4-D dimethylamine salt caused developmental toxicity only at dose levels toxic to the dams.
Dicamba did not cause developmental toxicity in rats and rabbits.

Aspiration hazard

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

SECTION 12: ECOLOGICAL INFORMATION

Biodegradability	Penoxsulam: 14.7 %, Exposure time: 28 d Not rapidly biodegradable 2,4-D dimethylamine salt: Not rapidly biodegradable Dicamba: Not rapidly biodegradable
Koc	Penoxsulam: No data available 2,4-D dimethylamine salt: Koc: 72 - 471 Dicamba: Koc: 5.1
Bioaccumulation	Penoxsulam: No data available 2,4-D dimethylamine salt: Bioconcentration factor (BCF) 0.1 Does not bioaccumulate. Dicamba: Bioconcentration factor (BCF) 15 Does not bioaccumulate.
Mobility in soil	Penoxsulam: No data available 2,4-D dimethylamine salt: Moderately mobile in soils Dicamba: Highly mobile in soils
Results of PBT and vPvB assessment	
PBT and vPvB assessment	Penoxsulam: No data available 2,4-D dimethylamine salt: 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). Dicamba: 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).
Additional ecological information	No data is available on the product itself.
Environmental precautions	Do not apply directly to water, to areas where surface water is present or to intertidal areas below the mean high water mark. Drift and runoff from treated areas may be hazardous to aquatic organisms in adjacent sites. Drift or runoff from treated areas may adversely affect non-target plants. 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.

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SECTION 13: DISPOSAL CONSIDERATIONS

Waste treatment methods

Product	Dispose in accordance with all local, state/provincial and federal regulations.
Contaminated packaging	Consult state and local regulations regarding the proper disposal of container. Follow advice on product label and/or leaflet.
RCRA Information	Characterization and proper disposal of this material as a special or hazardous waste is dependent upon Federal, State and local laws and are the user's responsibility. RCRA classification may apply.

SECTION 14: TRANSPORT INFORMATION

49CFR	Not dangerous goods / not hazardous material
IMDG	Not dangerous goods / not hazardous material
IATA	Not dangerous goods / not hazardous material

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.

SECTION 15: REGULATORY INFORMATION

EPA Registration No.	2217-1009-71995
US Federal Regulations	
TSCA list	
Water	7732-18-5
1,2-Propanediol	57-55-6
US. Toxic Substances Control Act (TSCA) Section 12(b) Export Notification (40 CFR 707, Subpt D)	
No export notification needs to be made.	
SARA Title III - Section 302 - Notification and Information	
Not applicable.	
SARA Title III - Section 313 - Toxic Chemical Release Reporting	
None.	

US States Regulatory Reporting CA Prop65

This product does not contain any substances known to the State of California to cause cancer.

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This product does not contain any substances known to the State of California to cause reproductive harm.

US State Right-To-Know Ingredients

1,2-Propanediol 57-55-6 MN, RI

Environmental

CERCLA

None.

Clean Water Section 307(a)(1)

None.

Safe Drinking Water Act Maximum Contaminant Levels

None.

EPA/FIFRA Information:

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 required on the pesticide label:

Signal word: Caution!

Hazard statements: Causes moderate eye irritation.
Harmful if swallowed or absorbed through skin.
Wear long-sleeved shirt and long pants and shoes plus socks.
Wash thoroughly with soap and water after handling.

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

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NFPA 704 (National Fire Protection Association):

Health - 2 Flammability - 1 Instability - 0 Others - none

HMIS (Hazardous Materials Identification System, based on the Third 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

Reason for Revision: New Safety Data Sheet.

Revision Date: 02/22/2021

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