

SAFETY DATA SHEET



SENCOR® 75% TURF HERBICIDE

Version 3.0 / USA
102000007121

1/11
Revision Date: 01/11/2018
Print Date: 01/11/2018

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

Product identifier

Trade name SENCOR® 75% TURF HERBICIDE

Product code (UVP) 04399641

SDS Number 102000007121

EPA Registration No. 432-1469

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 Environmental Science
2 T.W. Alexander Drive
Research Triangle PK, NC 27709
USA

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 1-800-331-2867

SECTION 2: HAZARDS IDENTIFICATION

Classification in accordance with regulation HCS 29CFR §1910.1200

Acute toxicity(Oral, Inhalation): Category 4

Labelling in accordance with regulation HCS 29CFR §1910.1200



Signal word: Warning

Hazard statements

Harmful if swallowed.
Harmful if inhaled.

Precautionary statements

Wash thoroughly after handling.
Avoid breathing dust.

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Do not eat, drink or smoke when using this product.
Use only outdoors or in a well-ventilated area.
IF SWALLOWED: Call a POISON CENTER/doctor/physician if you feel unwell.
Rinse mouth.
IF INHALED: Remove person to fresh air and keep comfortable for breathing.
IF INHALED: Call a POISON CENTER/doctor/physician if you feel unwell.
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
Metribuzin	21087-64-9	75
Crystalline quartz (respirable)	14808-60-7	0.18

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. DO NOT induce vomiting unless directed to do so by a physician or poison control center. Rinse out mouth and give water in small sips to drink. Never give anything by mouth to an unconscious person. Do not leave victim unattended.

Most important symptoms and effects, both acute and delayed

Symptoms Breathing difficulties, Sedation

Indication of any immediate medical attention and special treatment needed

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Treatment	Appropriate supportive and symptomatic treatment as indicated by the patient's condition is recommended. There is no specific antidote.
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SECTION 5: FIREFIGHTING MEASURES

Extinguishing media

Suitable	Water, 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.
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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	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.
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Flash point	Not applicable
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Auto-ignition temperature	No data available
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Lower explosion limit	Not applicable
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Upper explosion limit	Not applicable
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Explosivity	Dust may form explosive mixture in air.
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Dust explosion class	No data available
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SECTION 6: ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures

Precautions	Avoid dust formation. Keep unauthorized people away. Isolate hazard area. Avoid contact with spilled product or contaminated surfaces.
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Methods and materials for containment and cleaning up

Methods for cleaning up	Sweep up or vacuum up spillage and collect in suitable container for disposal. Clean contaminated floors and objects thoroughly, observing environmental regulations. Contaminated soil may have to be removed and disposed.
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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.
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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 Handle and open container in a manner as to prevent spillage. Maintain exposure levels below the exposure limit through the use of general and local exhaust ventilation.

Advice on protection against fire and explosion Keep away from heat and sources of ignition. Avoid dust formation by friction. Dust may form explosive mixture in air.

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. Before removing gloves clean them with soap and water. Remove contaminated clothing immediately and dispose of safely. 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.

SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

Control parameters

Components	CAS-No.	Control parameters	Update	Basis
Metribuzin	21087-64-9	5 mg/m ³ (TWA)	1989	OSHA Z1A
Metribuzin	21087-64-9	5 mg/m ³ (TWA)	02 2012	ACGIH
Metribuzin	21087-64-9	5 mg/m ³ (REL)	2010	NIOSH
Metribuzin	21087-64-9	5 mg/m ³ (TWA)	06 2008	TN OEL
Metribuzin	21087-64-9	5 mg/m ³ (TWA PEL)	08 2010	US CA OEL
Metribuzin	21087-64-9	0.36 mg/m ³ (SK-SEN)		OES BCS*
Crystalline quartz	14808-60-7	0.025 mg/m ³	02 2012	ACGIH

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(respirable)		(TWA)		
(Respirable fraction.)				
Crystalline quartz (respirable)	14808-60-7	0.05 mg/m3 (REL)	2010	NIOSH
(Respirable dust.)				
Crystalline quartz (respirable)	14808-60-7	0.05 mg/m3 (TWA)	03 2016	OSHA
(Respirable dust.)				
Crystalline quartz (respirable)	14808-60-7	0.025 mg/m3 (OSHA_ACT)	03 2016	OSHA
(Respirable dust.)				
Crystalline quartz (respirable)	14808-60-7	0.05 mg/m3 (PEL)	03 2016	OSHA Z1
(Respirable dust.)				
Crystalline quartz (respirable)	14808-60-7	0.1 mg/m3 (TWA)	06 2008	TN OEL
(Respirable dust.)				
Crystalline quartz (respirable)	14808-60-7	0.05 mg/m3 (TWA PEL)	10 2016	US CA OEL
(Respirable dust.)				
Crystalline quartz (respirable)	14808-60-7	2.4millions of particles per cubic foot of air (TWA)	2000	Z3
(Respirable.)				
Crystalline quartz (respirable)	14808-60-7	0.1 mg/m3 (TWA)	2000	Z3
(Respirable.)				

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

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

Safety glasses with side-shields

Skin and body protection

Wear long-sleeved shirt and long pants and shoes plus socks.

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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.

SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance	grey-beige
Physical State	water-dispersible granules
Odor	musty
Odour Threshold	No data available
Vapor Pressure	No data available
Vapor Density (Air = 1)	No data available
Bulk density	0.53 - 0.59 g/ml (loose)
Evaporation rate	Not applicable
Boiling Point	Not applicable
Melting / Freezing Point	Not applicable
Water solubility	dispersible
Minimum Ignition Energy	No data available
Decomposition temperature	No data available
Partition coefficient: n-octanol/water	No data available
Flash point	Not applicable
Auto-ignition temperature	No data available
Lower explosion limit	Not applicable
Upper explosion limit	Not applicable
Explosivity	Dust may form explosive mixture in air.
Dust explosion class	No data available

SECTION 10: STABILITY AND REACTIVITY

Reactivity	
Thermal decomposition	No data available
Chemical stability	Stable under recommended storage conditions.

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Possibility of hazardous reactions	No dangerous reaction known under conditions of normal use.
Conditions to avoid	Sustained temperatures above 37.8 °C (100 °F).
Incompatible materials	Strong bases, Ketones, Aldehydes
Hazardous decomposition products	No decomposition products expected under normal conditions of use.

SECTION 11: TOXICOLOGICAL INFORMATION

Exposure routes Ingestion, Inhalation, Skin Absorption, Eye contact

Immediate Effects

Eye Moderate eye irritation.

Skin Harmful if absorbed through skin.

Ingestion Harmful if swallowed.

Inhalation Harmful if inhaled.

Information on toxicological effects

Acute oral toxicity LD50 (male Rat) 2,365 mg/kg
LD50 (female Rat) 1,449 mg/kg

Acute inhalation toxicity LC50 (male/female combined Rat) > 4.84 mg/l
Exposure time: 4 h
Determined in the form of dust.

Acute dermal toxicity LD50 (male/female combined Rat) > 2,000 mg/kg
LD50 (male/female combined Rabbit) > 5,000 mg/kg

Skin irritation Mild skin irritation. (Rabbit)

Eye irritation Moderate eye irritation. (Rabbit)

Sensitisation Non-sensitizing. (Guinea pig)

Assessment STOT Specific target organ toxicity – repeated exposure

Metribuzin caused specific target organ toxicity in experimental animal studies in the following organ(s):
Liver, Kidney.

Assessment mutagenicity

Metribuzin was not mutagenic or genotoxic based on the overall weight of evidence in a battery of in vitro and in vivo tests.

Assessment carcinogenicity

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

ACGIH

Metribuzin	21087-64-9	Group A4
Crystalline quartz (respirable)	14808-60-7	Group A2

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NTP

Crystalline quartz (respirable) 14808-60-7

IARC

Crystalline quartz (respirable) 14808-60-7 Overall evaluation: 1

OSHA

None.

Assessment toxicity to reproduction

Metribuzin caused reproduction toxicity in a two-generation study in rats only at dose levels also toxic to the parent animals. The reproduction toxicity seen with Metribuzin is related to parental toxicity.

Assessment developmental toxicity

Metribuzin caused developmental toxicity only at dose levels toxic to the dams. The developmental effects seen with Metribuzin are related to maternal toxicity.

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

Toxicity to fish	LC50 (Oncorhynchus mykiss (rainbow trout)) 74.6 mg/l Exposure time: 96 h The value mentioned relates to the active ingredient metribuzin.
Toxicity to aquatic invertebrates	LC50 (Daphnia magna (Water flea)) 49.6 mg/l Exposure time: 48 h The value mentioned relates to the active ingredient metribuzin.
Toxicity to aquatic plants	EC50 (Scenedesmus quadricauda (Green algae)) 0.022 mg/l The value mentioned relates to the active ingredient metribuzin.
Toxicity to bacteria	(activated sludge) 761 mg/l The value mentioned relates to the active ingredient metribuzin.
Biodegradability	Metribuzin: Not rapidly biodegradable
Koc	Metribuzin: Koc: 24 - 106
Bioaccumulation	Metribuzin: Does not bioaccumulate.
Mobility in soil	Metribuzin: Mobile in soils
Environmental precautions	Apply this product as specified on the label. Do not apply directly to water, to areas where surface water is present or to intertidal areas below the mean high water mark.

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Do not apply when weather conditions favor runoff or drift.
Do not contaminate surface or ground water by cleaning equipment or disposal of wastes, including equipment wash water.

SECTION 13: DISPOSAL CONSIDERATIONS

Waste treatment methods

Product	Follow container label instructions for disposal of wastes generated during use in compliance with the product label. Dispose in accordance with all local, state/provincial and federal regulations.
Contaminated packaging	Follow advice on product label and/or leaflet. Do not re-use empty containers. Triple rinse containers. Puncture container to avoid re-use. Consult state and local regulations regarding the proper disposal of container.
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	
UN number	3077
Class	9
Packaging group	III
Marine pollutant	YES
Proper shipping name	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S. (METRIBUZIN MIXTURE)
IATA	
UN number	3077
Class	9
Packaging group	III
Environm. Hazardous Mark	YES
Proper shipping name	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S. (METRIBUZIN MIXTURE)

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.

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Freight Classification: Fertilizing Compounds, N.O.I., Dry, having a density of equal to or greater than 20 lbs. per cubic foot

SECTION 15: REGULATORY INFORMATION

EPA Registration No. 432-1469

US Federal Regulations

TSCA list

Crystalline quartz (respirable) 14808-60-7

US. Toxic Substances Control Act (TSCA) Section 12(b) Export Notification (40 CFR 707, Subpt D)

None.

SARA Title III - Section 302 - Notification and Information

None.

SARA Title III - Section 313 - Toxic Chemical Release Reporting

Metribuzin 21087-64-9 1.0%

US States Regulatory Reporting

CA Prop65

This product contains a chemical known to the State of California to cause cancer.

Crystalline quartz (respirable) 14808-60-7

US State Right-To-Know Ingredients

Metribuzin 21087-64-9 MN, NJ, RI

Crystalline quartz (respirable) 14808-60-7 MN, RI

Canadian Regulations

Canadian Domestic Substance List

None.

Environmental

CERCLA

None.

Clean Water Section 307 Priority Pollutants

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:

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Signal word: Caution!

Hazard statements: Harmful if swallowed, inhaled or absorbed through the skin.
Moderate eye irritation.
Avoid contact with skin, eyes and clothing.

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

NFPA 704 (National Fire Protection Association):

Health - 1 Flammability - 3 Instability - 1 Others - none

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

Health - 1 Flammability - 3 Physical Hazard - 1 PPE -

0 = minimal hazard, 1 = slight hazard, 2 = moderate hazard, 3 = severe hazard, 4 = extreme hazard

Reason for Revision: The following sections have been revised: Section 2: Hazards Identification.
Section 3: Composition / Information on Ingredients.

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