



Safety Data Sheet

SENCOR® 75 DF SPRAYULE™ 75% WATER DISPERSIBLE GRANULAR HERBICIDE

SDS Number: 102000007121

SDS Version 1.5

Revision Date: 05/30/2013

Print Date: 05/31/2013

SECTION 1. CHEMICAL PRODUCT AND COMPANY INFORMATION

Product name	SENCOR® 75 DF SPRAYULE™ 75% WATER DISPERSIBLE GRANULAR HERBICIDE
SDS Number	102000007121
Product code (UVP)	04399641, 04886046
PCP Registration No.	17242
Product Use	Herbicide

Bayer CropScience Inc
 #200, 160 Quarry Park Blvd, SE
 Calgary, Alberta T2C 3G3
 Canada

For MEDICAL, TRANSPORTATION or other EMERGENCY call: 1-800-334-7577 (24 hours/day)
 For Product Information call: 1-888-283-6847

SECTION 2. HAZARDS IDENTIFICATION

NOTE: Please refer to Section 11 for detailed toxicological information.

<u>Emergency Overview</u>	Caution! Harmful if swallowed, inhaled or absorbed through the skin. Moderate eye irritation. Avoid contact with skin, eyes and clothing.
Physical State	water-dispersible granules
Odor	musty
Appearance	grey-beige
Exposure routes	Skin contact, Skin Absorption, Eye contact, Inhalation
Immediate Effects	
Eye	Moderate eye irritation. Avoid contact with eyes.
Skin	Harmful if absorbed through skin. Avoid contact with skin and clothing.
Ingestion	Harmful if swallowed. Do not take internally.
Inhalation	Harmful if inhaled. Avoid breathing dust.



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**Chronic or Delayed
Long-Term**

This product is not listed as a carcinogen by ACGIH, NTP, IARC or OSHA. However, it may contain crystalline silica (quartz), a substance which has been listed as a carcinogen by ACGIH, NTP and IARC. Crystalline silica is a naturally-occurring mineral component of many sands and clays. Although the carcinogenic potential of crystalline silica in humans is controversial, it must be considered if it is inhaled under excessive exposure conditions. The respirable portion of the silica that may be contained in this product, however, is small, such that inhalation exposure during anticipated conditions of use is minimal.

**Medical Conditions
Aggravated by Exposure**

No specific medical conditions are known which may be aggravated by exposure to this product. As with all materials which can cause upper respiratory tract irritation, persons with a history of asthma, emphysema, or hyperreactive airways disease may be more susceptible to overexposure. Pulmonary and respiratory diseases may be aggravated by exposure to respirable crystalline silica.

SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS

<u>Hazardous Component Name</u>	<u>CAS-No.</u>	<u>Average % by Weight</u>
Metribuzin	21087-64-9	75.00
Sodium aluminium silicate	1344-00-9	1.00
Kaolin	1332-58-7	17.50
Crystalline quartz (respirable)	14808-60-7	0.18

SECTION 4. FIRST AID MEASURES

General	When possible, have the product container or label with you when calling a poison control center or doctor or going for treatment.
Eye	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.
Skin	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.
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.
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.



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Notes to physician

Signs and Symptoms

Breathing difficulties
Sedation

Treatment

Appropriate supportive and symptomatic treatment as indicated by the patient's condition is recommended. There is no specific antidote.

SECTION 5. FIRE FIGHTING MEASURES

Flash point	not applicable
Autoignition temperature	no data available
Lower Flammability Limit	no data available
Upper Flammability Limit	no data available
Explosiveness	Dust may form explosive mixture in air.
Fire and Explosion Hazards	In the event of fire the following may be released: Carbon monoxide (CO) Carbon dioxide (CO ₂) Nitrogen oxides (NO _x) Sulphur oxides Mercaptans Hydrogen cyanide (hydrocyanic acid) Amines
Suitable extinguishing media	Water, Dry chemical
Unsuitable extinguishing media	High volume water jet
Fire Fighting Instructions	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. In the event of fire, wear self-contained breathing apparatus. In the event of fire and/or explosion do not breathe fumes.

SECTION 6. ACCIDENTAL RELEASE MEASURES

Personal precautions	Avoid dust formation. Keep unauthorized people away. Isolate hazard area. Avoid contact with spilled product or contaminated surfaces.
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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.

Additional advice Use personal protective equipment. Do not allow to enter soil, waterways or waste water canal. Do not allow product to contact non-target plants.

SECTION 7. HANDLING AND STORAGE

Handling procedures 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.

Keep away from heat and sources of ignition. Care should be taken to avoid formation of dust from abraded granules. Dust may form explosive mixture in air.

Storing Procedures 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.

Work/Hygienic Procedures 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. Garments that cannot be cleaned must be destroyed (burnt). Remove soiled clothing immediately and clean thoroughly before using again. Wash thoroughly and put on clean clothing.

SECTION 8. EXPOSURE CONTROLS / PERSONAL PROTECTION

General Protection Train employees in safe use of the product. Follow all label instructions. 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.

Eye/Face Protection Safety glasses with side-shields

Hand protection Chemical-resistant gloves (barrier laminate, butyl rubber, nitrile rubber or Viton)

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

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.



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Exposure Limits

Metribuzin	21087-64-9	OES BCS*	TWA	0.56 mg/m3
		CAD AB OEL	TWA	5 mg/m3
		CAD BC OEL	TWA	5 mg/m3
		CAD MB OEL	TWA	5 mg/m3
		CAD ON OEL	TWAEV	5 mg/m3
		CAD SK OEL	15 MIN ACL	10 mg/m3
		CAD SK OEL	8 HR ACL	5 mg/m3
Sodium aluminium silicate	1344-00-9	OEL (QUE)	TWA	5 mg/m3
		CAD BC OEL	TWA	1 mg/m3
Kaolin	1332-58-7	CAD MB OEL	TWA	1 mg/m3
		CAD ON OEL	TWAEV	1 mg/m3
		CAD AB OEL	TWA	2 mg/m3
		CAD BC OEL	TWA	2 mg/m3
		CAD MB OEL	TWA	2 mg/m3
		CAD ON OEL	TWAEV	2 mg/m3
		CAD SK OEL	15 MIN ACL	4 mg/m3
		CAD SK OEL	8 HR ACL	2 mg/m3
Crystalline quartz (respirable)	14808-60-7	OEL (QUE)	TWA	5 mg/m3
		CAD AB OEL	TWA	0.025 mg/m3
		CAD BC OEL	TWA	0.025 mg/m3
		CAD MB OEL	TWA	0.025 mg/m3
		CAD ON OEL	TWAEV	0.10 mg/m3
		CAD SK OEL	8 HR ACL	0.05 mg/m3
		OEL (QUE)	TWA	0.1 mg/m3

*OES BCS: Internal Bayer CropScience "Occupational Exposure Standard"

SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance	grey-beige
Physical State	water-dispersible granules
Odor	musty
pH	no data available
Vapor Pressure	no data available
Vapor Density (Air = 1)	no data available
Bulk density	33 - 37 lb/ft³ (loose)



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Evaporation rate	no data available
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
Viscosity	not applicable

SECTION 10. STABILITY AND REACTIVITY

Conditions to avoid	Sustained temperatures above 37.8 °C (100 °F).
Incompatibility	Strong bases Ketones Aldehydes
Hazardous Decomposition Products	Thermal decomposition can lead to release of: Carbon oxides Nitrogen oxides (NOx) Sulphur oxides Mercaptans Hydrogen cyanide (hydrocyanic acid) Amines
Hazardous reactions	Hydrolyses in alkaline medium.
Chemical Stability	Stable under recommended storage conditions.

SECTION 11. TOXICOLOGICAL INFORMATION

Only acute toxicity studies have been performed on this product as formulated. The non-acute information pertains to the technical-grade active ingredient, metribuzin.



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Acute oral toxicity	male rat: LD50: 2,365 mg/kg female rat: LD50: 1,449 mg/kg
Acute dermal toxicity	male/female combined rat: LD50: > 2,000 mg/kg male/female combined rabbit: LD50: > 5,000 mg/kg
Acute inhalation toxicity	male/female combined rat: LC50: > 4.84 mg/l Exposure time: 4 h Determined in the form of dust. male/female combined rat: LC50: > 19.36 mg/l Exposure time: 1 h Determined in the form of dust. Extrapolated from the 4 hr LC50.
Skin irritation	rabbit: Mild skin irritation.
Eye irritation	rabbit: Moderate eye irritation.
Sensitisation	guinea pig: Non-sensitizing.
Chronic toxicity	Metribuzin caused specific target organ toxicity in experimental animal studies in dogs in the following organ(s): blood. Metribuzin caused haemolytic anaemia in animal studies. The observed effects do not appear to be relevant for humans.

Assessment Carcinogenicity

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

ACGIH

Metribuzin	21087-64-9	Group A4
Sodium aluminium silicate	1344-00-9	Group A4
Kaolin	1332-58-7	Group A4
Crystalline quartz (respirable)	14808-60-7	Group A2

NTP

Crystalline quartz (respirable)	14808-60-7
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IARC

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

None.

Reproductive toxicity	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.
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.



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

SECTION 12. ECOLOGICAL INFORMATION

Toxicity to fish Leuciscus idus (Golden orfe)
LC50: 141.6 mg/l
Exposure time: 96 h
The value mentioned relates to the active ingredient metribuzin.

Oncorhynchus mykiss (rainbow trout)
LC50: 74.6 mg/l
Exposure time: 96 h
The value mentioned relates to the active ingredient metribuzin.

Toxicity to aquatic plants Scenedesmus quadricauda (Green algae)
EC50: 0.021 mg/l
The value mentioned relates to the active ingredient metribuzin.

Acute Toxicity to Aquatic Invertebrates Water flea (Daphnia magna)
LC50: 49.6 mg/l
Exposure time: 48 h
The value mentioned relates to the active ingredient metribuzin.

Toxicity to other organisms Colinus virginianus (Bobwhite quail)
LC50: 164 mg/kg
The value mentioned relates to the active ingredient metribuzin.

Anas platyrhynchos (Mallard duck)
LD50: 460 mg/kg
The value mentioned relates to the active ingredient metribuzin.

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. 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.



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SECTION 13. DISPOSAL CONSIDERATIONS

General Disposal Guidance	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.
Container Disposal	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.

SECTION 14. TRANSPORT INFORMATION

TDG	Not dangerous goods / not hazardous material
49CFR	Not dangerous goods / not hazardous material
IMDG	
UN number	3077
Class	9
Packaging group	III
Marine pollutant	YES
Description of the goods	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S. (METRIBUZIN MIXTURE)
IATA	
UN number	3077
Class	9
Packaging group	III
Environm. Hazardous Mark	YES
Description of the goods	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.

Freight Classification: COMPOUNDS, TREE OR WEEDKILLING, N.O.I., other than poison; HAVING A DENSITY OF GREATER THAN 20 LBS. PER CUBIC FOOT

SECTION 15. REGULATORY INFORMATION

PCP Registration No. 17242



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US Federal Regulations

TSCA list

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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%
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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
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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

Metribuzin	21087-64-9	MN, NJ
Kaolin	1332-58-7	MN
Crystalline quartz (respirable)	14808-60-7	MN

Canadian Regulations

Canadian Domestic Substance List

Sodium aluminium silicate	1344-00-9
Kaolin	1332-58-7
Crystalline quartz (respirable)	14808-60-7

Environmental

CERCLA

None.

Clean Water Section 307 Priority Pollutants

None.

Safe Drinking Water Act Maximum Contaminant Levels

None.

International Regulations

European Inventory of Existing Commercial Substances (EINECS)

Metribuzin	21087-64-9
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Kaolin	1332-58-7
Crystalline quartz (respirable)	14808-60-7



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SECTION 16. OTHER INFORMATION

NFPA 704 (National Fire Protection Association):

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

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

Health - 1 Flammability - 3 Physical Hazard - 0 PPE -

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

Reason for Revision: Reviewed and updated for general editorial purposes.

Prepared by the HSE Department of Bayer CropScience Inc. (306)-721-0310.

Revision Date: 05/30/2013

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