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

Product identifier
Trade name SENCOR® DF SOYBEAN HERBICIDE
Product code (UVP) 04399641
SDS Number 102000007121
PCP Registration No. 27362

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
Acute toxicity(Oral, Inhalation): Category 4

Labelling in accordance with Part 3 of the Hazardous Products Regulations

Signal word: Warning
Hazard statements Harmful if swallowed. Harmful if inhaled.
Precautionary statements Wash thoroughly after handling. Avoid breathing dust.
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

<table>
<thead>
<tr>
<th>Hazardous Component Name</th>
<th>CAS-No.</th>
<th>Concentration % by weight</th>
</tr>
</thead>
<tbody>
<tr>
<td>Metribuzin</td>
<td>21087-64-9</td>
<td>75</td>
</tr>
<tr>
<td>Crystalline quartz (respirable)</td>
<td>14808-60-7</td>
<td>0.18</td>
</tr>
</tbody>
</table>

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
TREATMENT

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

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.

Advice 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.

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.

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 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.

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.

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
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

<table>
<thead>
<tr>
<th>Components</th>
<th>CAS-No.</th>
<th>Control parameters</th>
<th>Update</th>
<th>Basis</th>
</tr>
</thead>
<tbody>
<tr>
<td>Metribuzin</td>
<td>21087-64-9</td>
<td>5 mg/m3 (TWA)</td>
<td>07 2009</td>
<td>CAD AB OEL</td>
</tr>
<tr>
<td>Metribuzin</td>
<td>21087-64-9</td>
<td>5 mg/m3 (TWA)</td>
<td>09 2011</td>
<td>CAD BC OEL</td>
</tr>
<tr>
<td>Metribuzin</td>
<td>21087-64-9</td>
<td>5 mg/m3 (TWA)</td>
<td>03 2011</td>
<td>CAD MB OEL</td>
</tr>
<tr>
<td>Metribuzin</td>
<td>21087-64-9</td>
<td>5 mg/m3 (TWA)</td>
<td>11 2010</td>
<td>CAD ON OEL</td>
</tr>
<tr>
<td>Metribuzin</td>
<td>21087-64-9</td>
<td>5 mg/m3 (8 HR ACL)</td>
<td>05 2009</td>
<td>CAD SK OEL</td>
</tr>
</tbody>
</table>
Metribuzin | 21087-64-9 | 10 mg/m³ (15 MIN ACL) | 05 2009 | CAD SK OEL
---|---|---|---|---
Metribuzin | 21087-64-9 | 5 mg/m³ (TWA) | 11 2011 | OEL (QUE)
Metribuzin | 21087-64-9 | 0.36 mg/m³ (SK-SEN) | | OES BCS*
Crystalline quartz (respirable) | 14808-60-7 | 0.025 mg/m³ (TWA) | 07 2009 | CAD AB OEL
Crystalline quartz (respirable) | 14808-60-7 | 0.025 mg/m³ (TWA) | 09 2011 | CAD BC OEL
Crystalline quartz (respirable) | 14808-60-7 | 0.025 mg/m³ (TWA) | 03 2011 | CAD MB OEL
Crystalline quartz (respirable) | 14808-60-7 | 0.10 mg/m³ (TWA) | 06 2015 | CAD ON OEL
Crystalline quartz (respirable) | 14808-60-7 | 0.05 mg/m³ (8 HR ACL) | 05 2009 | CAD SK OEL
Crystalline quartz (respirable) | 14808-60-7 | 0.1 mg/m³ (TWA) | 11 2011 | OEL (QUE)

*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.

**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.
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

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. 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.

SECTION 14: TRANSPORT INFORMATION

TDG
UN number 3077
Labels 9
Packaging group III
Marine pollutant Marine pollutant
Proper shipping name ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S. (METRIBUZIN)

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.

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. 27362
US Federal Regulations TSCA list None.
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 Prop 65 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 Crystalline quartz (respirable) 14808-60-7

Environmental CERCLA None.
Clean Water Section 307 Priority Pollutants None.
Safe Drinking Water Act Maximum Contaminant Levels None.

SECTION 16: OTHER INFORMATION

Abbreviations and acronyms
49CFR Code of Federal Regulations, Title 49
ACGIH US. ACGIH Threshold Limit Values
ATE Acute toxicity estimate
SAFETY DATA SHEET

SENCOR® DF SOYBEAN HERBICIDE

Version 2.0 / CDN
102000007121

Revision Date: 01/10/2018
Print Date: 09/04/2018

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
IMDG International Maritime Dangerous Goods
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


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: Revised according to the current Canadian WHMIS standard (WHMIS 2015).

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

Revision Date: 01/10/2018

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