SENCOR® 75 DF HERBICIDE

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

Product identifier

Trade name
Product code (UVP)
SDS Number
PCP Registration No.

SENCOR® 75 DF HERBICIDE
04399641
102000007121
17242

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

Use
Restrictions on use
Information on supplier
Supplier

Responsible Department
Emergency telephone no.
Emergency Telephone
1-800-334-7577
Number (24hr/ 7 days)
Product Information
Telephone Number

Herbicide
See product label for restrictions.

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

## 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.

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

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 <br> calling a poison control center or doctor or going for treatment. <br> Move to fresh air. If person is not breathing, call 911 or an ambulance, |
| :--- | :--- |
| Inhalation | then give artificial respiration, preferably mouth-to-mouth if possible. <br> Call a physician or poison control center immediately. |
| Skin contact | Take off contaminated clothing and shoes immediately. Wash off <br> immediately with plenty of water for at least 15 minutes. Call a <br> physician or poison control center immediately. |
| Eye contact | Hold eye open and rinse slowly and gently with water for 15-20 <br> minutes. Remove contact lenses, if present, after the first 5 minutes, <br> then continue rinsing eye. Call a physician or poison control center <br> immediately. |
| Ingestion | Call a physician or poison control center immediately. DO NOT induce <br> vomiting unless directed to do so by a physician or poison control <br> center. Rinse out mouth and give water in small sips to drink. Never <br> give anything by mouth to an unconscious person. Do not leave victim <br> 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. |
| :---: | :---: |
| 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 |  |
| 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. |
| 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

Additional advice

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.

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

Advice on protection against fire and explosion
Hygiene measures

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. Avoid dust formation by friction. Dust may form explosive mixture in air.
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 | $21087-64-9$ | $5 \mathrm{mg} / \mathrm{m} 3$ <br> $(\mathrm{TWA})$ | 072009 | CAD AB <br> OEL |
| Metribuzin | $21087-64-9$ | $5 \mathrm{mg} / \mathrm{m} 3$ <br> $(\mathrm{TWA})$ | 092011 | CAD BC <br> OEL |
| Metribuzin | $21087-64-9$ | $5 \mathrm{mg} / \mathrm{m3}$ <br> (TWA) | 032011 | CAD MB <br> OEL |
| Metribuzin | $21087-64-9$ | $5 \mathrm{mg} / \mathrm{m3}$ <br> (TWA) | 112010 | CAD ON <br> OEL |
| Metribuzin | $21087-64-9$ | $5 \mathrm{mg} / \mathrm{m3} 3$ <br> $(8 \mathrm{HR} \mathrm{ACL})$ | 052009 | CAD SK <br> OEL |

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|  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: |
| Metribuzin | 21087-64-9 | $\begin{gathered} 10 \mathrm{mg} / \mathrm{m} 3 \\ (15 \mathrm{MIN} \mathrm{ACL}) \end{gathered}$ | 052009 | $\begin{aligned} & \text { CAD SK } \\ & \text { OEL } \end{aligned}$ |
| Metribuzin | 21087-64-9 | $\begin{gathered} 5 \mathrm{mg} / \mathrm{m} 3 \\ \text { (TWA) } \end{gathered}$ | 112011 | OEL (QUE) |
| Metribuzin | 21087-64-9 | $\begin{gathered} 0.36 \mathrm{mg} / \mathrm{m} 3 \\ (\mathrm{SK}-\mathrm{SEN}) \end{gathered}$ |  | OES BCS* |
| Crystalline quartz (respirable) <br> (Respirable particles.) | 14808-60-7 | $\begin{gathered} 0.025 \mathrm{mg} / \mathrm{m3} \\ \text { (TWA) } \end{gathered}$ | 072009 | CAD AB OEL |
| Crystalline quartz (respirable) <br> (Respirable fraction.) | 14808-60-7 | $\begin{gathered} 0.025 \mathrm{mg} / \mathrm{m} 3 \\ \text { (TWA) } \end{gathered}$ | 092011 | $\begin{aligned} & \text { CAD BC } \\ & \text { OEL } \end{aligned}$ |
| Crystalline quartz (respirable) <br> (Respirable fraction.) | 14808-60-7 | $\begin{aligned} & 0.025 \mathrm{mg} / \mathrm{m3} \\ & \text { (TWA) } \end{aligned}$ | 032011 | CAD MB OEL |
| Crystalline quartz (respirable) <br> (Respirable fraction.) | 14808-60-7 | $\begin{gathered} 0.10 \mathrm{mg} / \mathrm{m} 3 \\ \text { (TWA) } \end{gathered}$ | 062015 | $\begin{aligned} & \hline \text { CAD ON } \\ & \text { OEL } \end{aligned}$ |
| Crystalline quartz (respirable) <br> (Respirable fraction.) | 14808-60-7 | $\begin{aligned} & 0.05 \mathrm{mg} / \mathrm{m} 3 \\ & (8 \mathrm{HR} \mathrm{ACL}) \end{aligned}$ | 052009 | $\begin{aligned} & \hline \text { CAD SK } \\ & \text { OEL } \end{aligned}$ |
| Crystalline quartz (respirable) <br> (Respirable dust.) | 14808-60-7 | $\begin{aligned} & \hline 0.1 \mathrm{mg} / \mathrm{m3} 3 \\ & \text { (TWA) } \end{aligned}$ | 112011 | 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

## Hand protection

## Eye protection

Skin and body protection
General protective measures

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.

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

Safety glasses with side-shields
Wear long-sleeved shirt and long pants and shoes plus socks.
Follow manufacturer's instructions for cleaning/maintaining PPE. If

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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 | $0.53-0.59 \mathrm{~g} / \mathrm{ml}$ (loose) |
| Evaporation rate | Not applicable |
| Boiling Point <br> Melting / Freezing Point | Not applicable |
| Water solubility | dispersible |
| Minimum Ignition Energy | No data available |
| Decomposition <br> temperature | No data available |
| Partition coefficient: $\mathbf{n}-$ <br> 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 <br> reactions | No dangerous reaction known under conditions of normal use. |

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| Conditions to avoid | Sustained temperatures above $37.8^{\circ} \mathrm{C}\left(100{ }^{\circ} \mathrm{F}\right)$. |
| :--- | :--- |
| Incompatible materials | Strong bases, Ketones, Aldehydes |
| Hazardous decomposition <br> products | No decomposition products expected under normal conditions of use. |

## SECTION 11: TOXICOLOGICAL INFORMATION

| Exposure routes | Ingestion, Inhalation, Skin Absorption, Eye contact |
| :--- | :--- |
| Immediate Effects | Moderate eye irritation. |
| Eye | Harmful if absorbed through skin. |
| Skin | Harmful if swallowed. |
| Ingestion | Harmful if inhaled. |
| Inhalation | LD50 (male Rat) 2,365 mg/kg |
| Information on toxicological effects |  |
| Acute oral toxicity | LD50 (female Rat) 1,449 mg/kg |
|  | LC50 (male/female combined Rat) >4.84 mg/l |
| Acute inhalation toxicity | Exposure time: 4 h |
|  | Determined in the form of dust. |
|  | LD50 (male/female combined Rat) $>2,000 \mathrm{mg} / \mathrm{kg}$ |
| Acute dermal toxicity | LD50 (male/female combined Rabbit) $>5,000 \mathrm{mg} / \mathrm{kg}$ |
|  | Mild skin irritation. (Rabbit) |
| Skin irritation | Moderate eye irritation. (Rabbit) |
| Eye irritation | Non-sensitizing. (Guinea pig) |
| Sensitisation |  |
| 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 | $21087-64-9$ <br> Crystalline quartz (respirable) | Group A4 <br> Group A2 |
| :--- | :--- | :--- |
| NTP |  |  |
| Crystalline quartz (respirable) | $14808-60-7$ |  |

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

## Waste treatment methods

| Product | Follow container label instructions for disposal of wastes generated <br> during use in compliance with the product label. <br> Dispose in accordance with all local, state/provincial and federal <br> regulations. |
| :--- | :--- |
| Contaminated packaging | Follow advice on product label and/or leaflet. <br> Do not re-use empty containers. |
| Triple rinse containers. <br> Puncture container to avoid re-use. <br> Consult state and local regulations regarding the proper disposal of <br> container. |  |

## SECTION 14: TRANSPORT INFORMATION

## TDG

```
UN number 3077
Labels
Packaging group
Marine pollutant
Proper shipping name
49CFR
IMDG
UN number 3077
Class 9
Packaging group
Marine pollutant
Proper shipping name
```


## IATA

UN number ..... 3077
Class ..... 9
Packaging group

```Environm. Hazardous MarkProper shipping nameIIIYESENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID,N.O.S.
(METRIBUZIN MIXTURE )
```

This transportation information is not intended to convey all specific regulatory information relating to this

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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

## 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 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
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 |

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| 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: 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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