

SAFETY DATA SHEET



SENCOR® 480 F FLOWABLE HERBICIDE

Version 3.0 / CDN
102000013572

1/10
Revision Date: 09/24/2018
Print Date: 04/09/2021

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

Product identifier

Trade name SENCOR® 480 F FLOWABLE HERBICIDE

Product code (UVP) 04886011

SDS Number 102000013572

PCP Registration No. 26280

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

This material is not hazardous under the criteria of Part 2 of the Hazardous Products 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	41.0
Fatty acid methyl tauride sodium salt	137-20-2	1.2

SAFETY DATA SHEET



SENCOR® 480 F FLOWABLE HERBICIDE

Version 3.0 / CDN
102000013572

2/10
Revision Date: 09/24/2018
Print Date: 04/09/2021

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

Symptoms No symptoms known or expected.

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 Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide.

Unsuitable High volume water jet

Special hazards arising from the substance or mixture In the event of fire the following may be released: Hydrogen cyanide (hydrocyanic acid), Carbon monoxide (CO), Nitrogen oxides (NOx), Sulphur oxides

Advice for firefighters

Special protective equipment for firefighters 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.

SAFETY DATA SHEET



SENCOR® 480 F FLOWABLE HERBICIDE

Version 3.0 / CDN
102000013572

3/10
Revision Date: 09/24/2018
Print Date: 04/09/2021

Flash point	> 100 °C No flash point - Determination conducted up to the boiling point.
Auto-ignition temperature	No data available
Lower explosion limit	No data available
Upper explosion limit	No data available
Explosivity	No data available
Dust explosion class	Not applicable.

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. Use personal protective equipment.

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. Contaminated soil may have to be removed and disposed.

Clean contaminated floors and objects thoroughly, observing environmental regulations. Decontaminate tools and equipment following cleanup.

Additional advice 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.

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

SAFETY DATA SHEET



SENCOR® 480 F FLOWABLE HERBICIDE

Version 3.0 / CDN
102000013572

4/10
Revision Date: 09/24/2018
Print Date: 04/09/2021

water. 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. 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

Components	CAS-No.	Control parameters	Update	Basis
Metribuzin	21087-64-9	5 mg/m ³ (TWA)	07 2009	CAD AB OEL
Metribuzin	21087-64-9	5 mg/m ³ (TWA)	09 2011	CAD BC OEL
Metribuzin	21087-64-9	5 mg/m ³ (TWA)	03 2011	CAD MB OEL
Metribuzin	21087-64-9	5 mg/m ³ (TWA)	11 2010	CAD ON OEL
Metribuzin	21087-64-9	10 mg/m ³ (15 MIN ACL)	05 2009	CAD SK OEL
Metribuzin	21087-64-9	5 mg/m ³ (8 HR ACL)	05 2009	CAD SK OEL
Metribuzin	21087-64-9	5 mg/m ³ (TWA)	09 2017	OEL (QUE)
Metribuzin	21087-64-9	0.36 mg/m ³ (SK-SEN)		OES BCS*

*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.

SAFETY DATA SHEET



SENCOR® 480 F FLOWABLE HERBICIDE

Version 3.0 / CDN
102000013572

5/10
Revision Date: 09/24/2018
Print Date: 04/09/2021

Hand protection	Chemical resistant nitrile rubber gloves
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 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.

SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance	white to grey-beige
Physical State	suspension
Odor	weak characteristic
Odour Threshold	No data available
pH	5.0 - 8.0 (100 %) (23 °C)
Vapor Pressure	No data available
Vapor Density (Air = 1)	No data available
Specific Gravity	Not applicable
Density	ca. 1.16 g/cm ³ (20 °C)
Evaporation rate	No data available
Boiling Point	No data available
Melting / Freezing Point	-10 °C / 14 °F
Water solubility	miscible
Minimum Ignition Energy	Not applicable
Decomposition temperature	No data available
Partition coefficient: n-octanol/water	No data available
Viscosity	600 - 1,600 mPa.s (25 °C)
Flash point	> 100 °C No flash point - Determination conducted up to the boiling point.
Auto-ignition temperature	No data available
Lower explosion limit	No data available
Upper explosion limit	No data available
Explosivity	No data available

SAFETY DATA SHEET



SENCOR® 480 F FLOWABLE HERBICIDE

Version 3.0 / CDN
102000013572

6/10
Revision Date: 09/24/2018
Print Date: 04/09/2021

Dust explosion class	Not applicable.
Other information	Further safety related physical-chemical data are not known.

SECTION 10: STABILITY AND REACTIVITY

Reactivity

Thermal decomposition	No data available
Chemical stability	Stable under normal conditions.
Possibility of hazardous reactions	No hazardous reactions known.
Conditions to avoid	Sustained temperatures above 37.8 °C (100 °F).
Incompatible materials	Aldehydes, Bases, Ketones
Hazardous decomposition products	Amines Carbon dioxide (CO ₂) Mercaptans Sulphur oxides

SECTION 11: TOXICOLOGICAL INFORMATION

Exposure routes	Eye contact, Skin Absorption, Inhalation, Ingestion
Immediate Effects	
Eye	May cause mild irritation to eyes.
Skin	May cause skin irritation.
Ingestion	May be harmful if swallowed.
Inhalation	May be harmful if inhaled.
Information on toxicological effects	
Acute oral toxicity	LD ₅₀ (Rat) > 5,000 mg/kg
Acute inhalation toxicity	LC ₅₀ (Rat) 1.831 mg/l Exposure time: 4 h Determined in the form of liquid aerosol. Highest attainable concentration.
Acute dermal toxicity	LD ₅₀ (Rat) > 4,000 mg/kg
Skin corrosion/irritation	No skin irritation (Rabbit)
Serious eye damage/eye irritation	No eye irritation (Rabbit)
Respiratory or skin sensitisation	Non-sensitizing. (Guinea pig) OECD Test Guideline 406, Buehler test

SAFETY DATA SHEET



SENCOR® 480 F FLOWABLE HERBICIDE

Version 3.0 / CDN
102000013572

7/10
Revision Date: 09/24/2018
Print Date: 04/09/2021

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

NTP

None.

IARC

None.

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

No further toxicological information is available.

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.

Toxicity to aquatic invertebrates

EC50 (Daphnia magna (Water flea)) 49.6 mg/l
Exposure time: 48 h
The value mentioned relates to the active ingredient.

Toxicity to aquatic plants

IC50 (Desmodesmus subspicatus (green algae)) 0.022 mg/l
Growth rate; Exposure time: 72 h
The value mentioned relates to the active ingredient.

SAFETY DATA SHEET



SENCOR® 480 F FLOWABLE HERBICIDE

Version 3.0 / CDN
102000013572

8/10
Revision Date: 09/24/2018
Print Date: 04/09/2021

Biodegradability	Metribuzin: Not rapidly biodegradable
Koc	Metribuzin: Koc: 24 - 106
Bioaccumulation	Metribuzin: Does not bioaccumulate.
Mobility in soil	Metribuzin: Mobile in soils
Additional ecological information	No further ecological information is available.
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. Do not contaminate surface or ground water by cleaning equipment or disposal of wastes, including equipment wash water. Do not allow to get into surface water, drains and ground water.

SECTION 13: DISPOSAL CONSIDERATIONS

Waste treatment methods

Product	Pesticide, spray mixture or rinse water that cannot be used according to label instructions may be disposed of on site or at an approved waste disposal facility.
Contaminated packaging	Triple rinse containers. Puncture container to avoid re-use. Dispose of empty container in a sanitary landfill or by incineration, or, if allowed by State/Provincial and local authorities, by burning. If burned, stay out of smoke.

SECTION 14: TRANSPORT INFORMATION

TDG

UN number	3082
Labels	9
Packaging group	III
Marine pollutant	Marine pollutant
Proper shipping name	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (METRIBUZIN)

49CFR	Not dangerous goods / not hazardous material
--------------	--

IMDG

UN number	3082
Class	9
Packaging group	III
Marine pollutant	YES

SAFETY DATA SHEET



SENCOR® 480 F FLOWABLE HERBICIDE

Version 3.0 / CDN
102000013572

9/10
Revision Date: 09/24/2018
Print Date: 04/09/2021

Proper shipping name ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID,
N.O.S.
(METRIBUZIN SOLUTION)

IATA

UN number 3082
Class 9
Packaging group III
Environm. Hazardous Mark YES
Proper shipping name ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID,
N.O.S.
(METRIBUZIN SOLUTION)

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.

Further Information Exempt from regulation when transported by road or rail, in accordance with TDG Regulations 1.45.1.
This exemption provides that this product does not require dangerous goods shipping documentation or safety marks when transported on land by road or rail.

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

SECTION 15: REGULATORY INFORMATION

PCP Registration No. 26280

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

SAFETY DATA SHEET



SENCOR® 480 F FLOWABLE HERBICIDE

Version 3.0 / CDN
102000013572

10/10
Revision Date: 09/24/2018
Print Date: 04/09/2021

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 - 1 Instability - 1 Others - none

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

Health - 1 Flammability - 1 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: 09/24/2018

This information is provided in good faith but without express or implied warranty. The customer assumes all responsibility for safety and use not in accordance with label instructions. The product names are registered trademarks of Bayer.