

MATERIAL SAFETY DATA SHEETS

FOR CONQUEST LQ:

PURSUIT HERBICIDE

PLUS

SENCOR 480 F HERBICIDE

Safety Data Sheet

PURSUIT 240 EAST

Revision date : 2015/06/19
Version: 6.0

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(30129781/SDS_CPA_CA/EN)

1. Identification

Product identifier used on the label

PURSUIT 240 EAST

Recommended use of the chemical and restriction on use

Recommended use*: herbicide

* The "Recommended use" identified for this product is provided solely to comply with a Federal requirement and is not part of the seller's published specification. The terms of this Safety Data Sheet (SDS) do not create or infer any warranty, express or implied, including by incorporation into or reference in the seller's sales agreement.

Details of the supplier of the safety data sheet

Company:

BASF Canada Inc.
100 Milverton Drive
Mississauga, ON L5R 4H1, CANADA

Telephone: +1 289 360-1300

Emergency telephone number

CANUTEC (reverse charges): (613) 996-6666
BASF HOTLINE: (800) 454-COPE (2673)

Other means of identification

Molecular formula:	C ₁₅ H ₁₉ N ₃ O ₃ . N H(4)
Chemical family:	imidazole derivative
PCP # 21537	
Synonyms:	Imazethapyr ammonium

2. Hazards Identification

According to Controlled Products Regulations (CPR) (SOR/88-66)

Emergency overview

CAUTION:
MAY BE HARMFUL IF SWALLOWED.
May be harmful if absorbed through skin.
MAY BE HARMFUL IF INHALED.
KEEP OUT OF REACH OF CHILDREN.

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MAY CAUSE EYE IRRITATION.
MAY CAUSE SKIN IRRITATION.
May cause eye damage.

3. Composition / Information on Ingredients

According to Controlled Products Regulations (CPR) (SOR/88-66)

Not WHMIS controlled.

4. First-Aid Measures

Description of first aid measures

General advice:

Remove contaminated clothing.

If inhaled:

Keep patient calm, remove to fresh air, seek medical attention.

If on skin:

Wash thoroughly with soap and water.

If in eyes:

Wash affected eyes for at least 15 minutes under running water with eyelids held open, consult an eye specialist.

If swallowed:

Immediately rinse mouth and then drink 200-300 ml of water, seek medical attention.

Most important symptoms and effects, both acute and delayed

Symptoms: No significant reaction of the human body to the product known.

Indication of any immediate medical attention and special treatment needed

Note to physician

Treatment:

Treat according to symptoms (decontamination, vital functions), no known specific antidote.

5. Fire-Fighting Measures

Extinguishing media

Suitable extinguishing media:

foam, dry powder, carbon dioxide, water spray

Special hazards arising from the substance or mixture

Hazards during fire-fighting:

carbon monoxide, carbon dioxide, nitrogen dioxide, nitrogen oxide, Hydrocarbons,

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If product is heated above decomposition temperature, toxic vapours will be released. The substances/groups of substances mentioned can be released if the product is involved in a fire.

Advice for fire-fighters

Protective equipment for fire-fighting:

Firefighters should be equipped with self-contained breathing apparatus and turn-out gear.

Further information:

Evacuate area of all unnecessary personnel. Contain contaminated water/firefighting water. Do not allow to enter drains or waterways.

6. Accidental release measures

Personal precautions, protective equipment and emergency procedures

Take appropriate protective measures. Clear area. Shut off source of leak only under safe conditions. Extinguish sources of ignition nearby and downwind. Ensure adequate ventilation. Wear suitable personal protective clothing and equipment.

Environmental precautions

Do not discharge into the subsoil/soil. Do not discharge into drains/surface waters/groundwater. Contain contaminated water/firefighting water.

Methods and material for containment and cleaning up

Dike spillage. Pick up with suitable absorbent material. Place into suitable containers for reuse or disposal in a licensed facility. Spilled substance/product should be recovered and applied according to label rates whenever possible. If application of spilled substance/product is not possible, then spills should be contained, solidified, and placed in suitable containers for disposal. After decontamination, spill area can be washed with water. Collect wash water for approved disposal.

7. Handling and Storage

Precautions for safe handling

Ensure adequate ventilation. Keep away from sources of ignition - No smoking. Keep container tightly sealed. Protect contents from the effects of light. Protect against heat. Protect from air. Handle and open container with care. Avoid aerosol formation. Avoid dust formation. Provide means for controlling leaks and spills. Do not return residues to the storage containers. Follow label warnings even after container is emptied. The substance/ product may be handled only by appropriately trained personnel. Avoid all direct contact with the substance/product. Avoid contact with the skin, eyes and clothing. Avoid inhalation of dusts/mists/vapours. Wear suitable personal protective clothing and equipment.

Protection against fire and explosion:

No special precautions necessary. The substance/product is non-combustible. Product is not explosive.

Conditions for safe storage, including any incompatibilities

Segregate from incompatible substances. Segregate from foods and animal feeds. Segregate from textiles and similar materials.

Further information on storage conditions: Keep away from heat. Protect against moisture. Protect from direct sunlight.

Protect from temperatures below: 5 °C

Changes in the properties of the product may occur if substance/product is stored below indicated temperature for extended periods of time.

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Protect from temperatures above: 30 °C
Changes in the properties of the product may occur if substance/product is stored above indicated temperature for extended periods of time.

8. Exposure Controls/Personal Protection

Users of a pesticidal product should refer to the product label for personal protective equipment requirements.

Components with occupational exposure limits

ammonia	OSHA PEL	PEL 50 ppm 35 mg/m ³ ; STEL value 35 ppm 27 mg/m ³ ;
	ACGIH TLV	TWA value 25 ppm ; STEL value 35 ppm ;

Advice on system design:

Whenever possible, engineering controls should be used to minimize the need for personal protective equipment.

Personal protective equipment

Respiratory protection:

Wear respiratory protection if ventilation is inadequate. Wear a NIOSH-certified (or equivalent) TC23C Chemical/Mechanical type filter system to remove a combination of particles, gas and vapours. For situations where the airborne concentrations may exceed the level for which an air purifying respirator is effective, or where the levels are unknown or Immediately Dangerous to Life or Health (IDLH), use NIOSH-certified full facepiece pressure demand self-contained breathing apparatus (SCBA) or a full facepiece pressure demand supplied-air respirator (SAR) with escape provisions.

Hand protection:

Chemical resistant protective gloves

Eye protection:

Safety glasses with side-shields. Tightly fitting safety goggles (chemical goggles). Wear face shield if splashing hazard exists.

Body protection:

Body protection must be chosen depending on activity and possible exposure, e.g. head protection, apron, protective boots, chemical-protection suit.

General safety and hygiene measures:

Wear long sleeved work shirt and long work pants in addition to other stated personal protective equipment. Work place should be equipped with a shower and an eye wash. Handle in accordance with good industrial hygiene and safety practice. Personal protective equipment should be decontaminated prior to reuse. Gloves must be inspected regularly and prior to each use. Replace if necessary (e.g. pinhole leaks). Take off immediately all contaminated clothing. Store work clothing separately. Hands and/or face should be washed before breaks and at the end of the shift. No eating, drinking, smoking or tobacco use at the place of work. Keep away from food, drink and animal feeding stuffs.

9. Physical and Chemical Properties

Form:	liquid
Odour:	faint odour
Odour threshold:	Not determined due to potential health hazard by inhalation.

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Colour:	green to dark brown	
pH value:	approx. 6 - 8 (approx. 20 °C)	
Freezing point:	approx. 0 °C	
Boiling point:	Information applies to the solvent. approx. 100 °C (1 ATM)	
Flash point:	Information applies to the solvent. No flash point - Measurement made up to the boiling point.	(ASTM D3278)
Flammability:	not flammable	
Lower explosion limit:	As a result of our experience with this product and our knowledge of its composition we do not expect any hazard as long as the product is used appropriately and in accordance with the intended use.	
Upper explosion limit:	As a result of our experience with this product and our knowledge of its composition we do not expect any hazard as long as the product is used appropriately and in accordance with the intended use.	
Autoignition:	not applicable Based on the water content the product does not ignite.	
Vapour pressure:	approx. 23.3 kPa (20 °C)	
Density:	Information applies to the solvent. approx. 1.11 g/cm ³ (20 °C)	
Partitioning coefficient n- octanol/water (log Pow):	not applicable, The statements are based on the properties of the individual components.	
<i>Information on: imazethapyr</i>		
Partitioning coefficient n- octanol/water (log Pow):	1.49 (25 °C)	

Self-ignition temperature:	not applicable	
Thermal decomposition:	No decomposition if stored and handled as prescribed/indicated.	
Viscosity, dynamic:	approx. > 1 mPa.s (20 °C)	
Solubility in water:	miscible	
Evaporation rate:	not applicable	
Other Information:	If necessary, information on other physical and chemical parameters is indicated in this section.	

10. Stability and Reactivity

Reactivity

No hazardous reactions if stored and handled as prescribed/indicated.

Oxidizing properties:

Based on its structural properties the product is not classified as oxidizing.

Chemical stability

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The product is stable if stored and handled as prescribed/indicated.

Possibility of hazardous reactions

The product is chemically stable.

Hazardous polymerization will not occur. No hazardous reactions if stored and handled as prescribed/indicated.

Conditions to avoid

Avoid all sources of ignition: heat, sparks, open flame. Avoid prolonged storage. Avoid contamination. Avoid prolonged exposure to extreme heat. Avoid extreme temperatures.

Incompatible materials

oxidizing agents

Hazardous decomposition products

Decomposition products:

Hazardous decomposition products: No hazardous decomposition products if stored and handled as prescribed/indicated., Prolonged thermal loading can result in products of degradation being given off.

Thermal decomposition:

No decomposition if stored and handled as prescribed/indicated.

11. Toxicological information

Primary routes of exposure

Routes of entry for solids and liquids are ingestion and inhalation, but may include eye or skin contact. Routes of entry for gases include inhalation and eye contact. Skin contact may be a route of entry for liquefied gases.

Acute Toxicity/Effects

Acute toxicity

Assessment of acute toxicity: Virtually nontoxic after a single ingestion. Virtually nontoxic by inhalation. Virtually nontoxic after a single skin contact.

Oral

Type of value: LD50

Species: rat (male/female)

Value: > 5,000 mg/kg

Inhalation

Type of value: LC50

Species: rat (male/female)

Value: > 2.67 mg/l

Highest concentration available for testing. No mortality was observed.

Dermal

Type of value: LD50

Species: rabbit (male/female)

Value: > 5,000 mg/kg

The product has not been tested. The statement has been derived from substances/products of a similar structure or composition.

Assessment other acute effects

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Assessment of STOT single:
The available information is not sufficient for evaluation.

Irritation / corrosion

Assessment of irritating effects: May cause slight but temporary irritation to the eyes. May cause slight irritation to the skin.

Skin

Species: rabbit
Result: non-irritant

Eye

Species: rabbit
Result: non-irritant

Sensitization

Assessment of sensitization: Skin sensitizing effects were not observed in animal studies.

Buehler test

Species: guinea pig
Result: Skin sensitizing effects were not observed in animal studies.

Aspiration Hazard

No aspiration hazard expected. The product has not been tested. The statement has been derived from the properties of the individual components.

Chronic Toxicity/Effects

Repeated dose toxicity

Assessment of repeated dose toxicity: The product has not been tested. The statement has been derived from the properties of the individual components.

Information on: ammonia

Assessment of repeated dose toxicity: After repeated administration the prominent effect is the induction of corrosion.

Genetic toxicity

Assessment of mutagenicity: The product has not been tested. The statement has been derived from the properties of the individual components. Mutagenicity tests revealed no genotoxic potential.

Carcinogenicity

Assessment of carcinogenicity: The product has not been tested. The statement has been derived from the properties of the individual components. The results of various animal studies gave no indication of a carcinogenic effect.

Reproductive toxicity

Assessment of reproduction toxicity: The product has not been tested. The statement has been derived from the properties of the individual components. The results of animal studies gave no indication of a fertility impairing effect.

Teratogenicity

Assessment of teratogenicity: The product has not been tested. The statement has been derived from the properties of the individual components. Animal studies gave no indication of a developmental toxic effect at doses that were not toxic to the parental animals.

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Other Information

Misuse can be harmful to health.

Symptoms of Exposure

No significant reaction of the human body to the product known.

12. Ecological Information

Toxicity

Aquatic toxicity

Assessment of aquatic toxicity:

There is a high probability that the product is not acutely harmful to fish. There is a high probability that the product is not acutely harmful to aquatic invertebrates. Very toxic (acute effect) to aquatic plants.

Toxicity to fish

LC50 (96 h) > 112 mg/l, *Oncorhynchus mykiss* (Flow through.)

LC50 (96 h) > 110 mg/l, *Lepomis macrochirus*

Aquatic invertebrates

EC50 (48 h) > 110 mg/l, *Daphnia magna* (Flow through.)

Aquatic plants

EC50 (96 h) 21.5 mg/l, *Anabaena flos-aquae* (static)

No observed effect concentration (96 h) 7.19 mg/l, *Anabaena cylindrica* (static)

Aquatic plants

Information on: imazethapyr

EC50 (14 d) 0.0101 mg/l (growth rate), Lemna gibba

No observed effect concentration 0.00438 mg/l, Lemna gibba

Assessment of terrestrial toxicity

With high probability not acutely harmful to terrestrial organisms.

Persistence and degradability

Assessment biodegradation and elimination (H2O)

Not readily biodegradable (by OECD criteria). The product has not been tested. The statement has been derived from the properties of the individual components.

Assessment biodegradation and elimination (H2O)

Information on: imazethapyr

Not readily biodegradable (by OECD criteria).

Elimination information

Information on: imazethapyr

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approx. 1 - 2 % CO₂ formation relative to the theoretical value (28 d) (DIN ISO 11266) (soil)

Bioaccumulative potential

Assessment bioaccumulation potential

The product has not been tested. The statement has been derived from the properties of the individual components.

Bioaccumulation potential

Information on: imazethapyr

Because of the n-octanol/water distribution coefficient (log Pow) accumulation in organisms is not to be expected.

Mobility in soil

Assessment transport between environmental compartments

The product has not been tested. The statement has been derived from the properties of the individual components.

Information on: imazethapyr

Following exposure to soil, the product trickles away and can - dependant on degradation - be transported to deeper soil areas with larger water loads.

Additional information

Other ecotoxicological advice:

Do not discharge product into the environment without control.

13. Disposal considerations

Waste disposal of substance:

See product label for disposal and recycling instructions.

14. Transport Information

Land transport

TDG

Not classified as a dangerous good under transport regulations

Sea transport

IMDG

Hazard class:

9

Packing group:

III

ID number:

UN 3082

Hazard label:

9, EHSM

Marine pollutant:

YES

Proper shipping name:

ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID,

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N.O.S. (contains IMAZETHAPYR 22%)

Air transport

IATA/ICAO

Hazard class: 9
Packing group: III
ID number: UN 3082
Hazard label: 9, EHSM
Proper shipping name: ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID,
N.O.S. (contains IMAZETHAPYR 22%)

15. Regulatory Information

Federal Regulations

Registration status:

Chemical DSL, CA blocked / not listed

Crop Protection DSL, CA released / exempt

According to Controlled Products Regulations (CPR) (SOR/88-66)

WHMIS does not apply to this product.

THIS PRODUCT HAS BEEN CLASSIFIED IN ACCORDANCE WITH THE HAZARD CRITERIA OF THE CPR AND THE MSDS CONTAINS ALL THE INFORMATION REQUIRED BY THE CPR.

16. Other Information

SDS Prepared by:

BASF NA Product Regulations
SDS Prepared on: 2015/06/19

We support worldwide Responsible Care® initiatives. We value the health and safety of our employees, customers, suppliers and neighbors, and the protection of the environment. Our commitment to Responsible Care is integral to conducting our business and operating our facilities in a safe and environmentally responsible fashion, supporting our customers and suppliers in ensuring the safe and environmentally sound handling of our products, and minimizing the impact of our operations on society and the environment during production, storage, transport, use and disposal of our products.

END OF DATA SHEET



Safety Data Sheet SENCOR® FOR SOYBEANS

SDS Number: 102000013572

SDS Version 2.1

Revision Date: 04/04/2013

Print Date: 04/04/2013

SECTION 1. CHEMICAL PRODUCT AND COMPANY INFORMATION

Product name	SENCOR® FOR SOYBEANS
SDS Number	102000013572
Product code (UVP)	04886011
PCP Registration No.	29346
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.

Emergency Overview Caution! Harmful if swallowed, inhaled or absorbed through the skin. Avoid contact with skin, eyes and clothing. Avoid breathing dust or spray mist.

Physical State liquid suspension

Odor weak characteristic

Appearance white to grey-beige

Exposure routes Eye contact, Skin Absorption, Inhalation, Ingestion

Immediate Effects

Eye Mild eye irritation. Avoid contact with eyes.

Skin Slight irritation Avoid contact with skin and clothing.

Ingestion Harmful if swallowed. Do not take internally.

Inhalation May be harmful if inhaled.

Chronic or Delayed Long-Term This product or its components may have target organ effects.



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SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS

<u>Hazardous Component Name</u>	<u>CAS-No.</u>	<u>Average % by Weight</u>
Metribuzin	21087-64-9	41.00
Fatty acid methyl tauride sodium salt	137-20-2	1.18
Glycerine	56-81-5	15.00

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.
Notes to physician 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	> 100 °C / 212 °F No flash point - Determination conducted up to the boiling point.
Autoignition temperature	no data available
Lower Flammability Limit	no data available
Upper Flammability Limit	no data available
Explosiveness	no data available



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Fire and Explosion Hazards	In the event of fire the following may be released: Hydrogen cyanide (hydrocyanic acid) Carbon monoxide (CO) Nitrogen oxides (NOx) Sulphur oxides
Suitable extinguishing media	Water, Dry chemical, Carbon dioxide (CO2), Foam, Sand
Fire Fighting Instructions	Avoid contact with spilled product or contaminated surfaces. Evacuate personnel to safe areas. 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. Firefighters should wear NIOSH approved self-contained breathing apparatus and full protective clothing.
Dust explosion class	Not applicable.

SECTION 6. ACCIDENTAL RELEASE MEASURES

Personal precautions	Keep unauthorized people away. Isolate hazard area. Avoid contact with spilled product or contaminated surfaces. Use personal protective equipment. Avoid contact with spilled product or contaminated surfaces. Use personal protective equipment.
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	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.
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



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storage area.

Keep away from direct sunlight.

Keep away from food, drink and animal feedingstuffs.

Work/Hygienic Procedures

Handle in accordance with good industrial hygiene and safety practice. Wash hands thoroughly with soap and water after handling and before eating, drinking, chewing gum, using tobacco, using the toilet or applying cosmetics.

Remove contaminated clothing immediately and dispose of safely. Wash thoroughly and put on clean clothing.

Remove Personal Protective Equipment (PPE) immediately after handling this product. Before removing gloves clean them with soap and water. Wash thoroughly and put on clean clothing.

SECTION 8. EXPOSURE CONTROLS / PERSONAL PROTECTION

General Protection	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	Chemical resistant goggles must be worn. or Face-shield
Hand protection	Chemical resistant nitrile rubber gloves
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.

Exposure Limits

Metribuzin	21087-64-9	OES BCS*	TWA	0.56 mg/m ³
		CAD AB OEL	TWA	5 mg/m ³
		CAD BC OEL	TWA	5 mg/m ³
		CAD MB OEL	TWA	5 mg/m ³
		CAD ON OEL	TWAEV	5 mg/m ³
		CAD SK OEL	15 MIN ACL	10 mg/m ³
		CAD SK OEL	8 HR ACL	5 mg/m ³
Glycerine	56-81-5	OEL (QUE)	TWA	5 mg/m ³
		CAD AB OEL	TWA	10 mg/m ³
		CAD BC OEL	TWA	10 mg/m ³
		CAD BC OEL	TWA	3 mg/m ³



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CAD MB OEL	TWA	10 mg/m ³
CAD ON OEL	TWAEV	10 mg/m ³
CAD SK OEL	15 MIN ACL	20 mg/m ³
CAD SK OEL	8 HR ACL	10 mg/m ³
OEL (QUE)	TWA	10 mg/m ³

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

SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance	white to grey-beige
Physical State	liquid suspension
Odor	weak characteristic
pH	5.0 - 8.0 (100 %) at 20 °C
Vapor Pressure	no data available
Vapor Density (Air = 1)	no data available
Specific Gravity	not applicable
Density	ca. 1.16 g/cm ³ at 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

SECTION 10. STABILITY AND REACTIVITY

Conditions to avoid	Sustained temperatures above 37.8 °C (100 °F).
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Incompatibility	Aldehydes Bases Ketones
Hazardous Decomposition Products	Thermal decomposition Amines Carbon dioxide (CO ₂) Mercaptans Sulphur oxides
Hazardous reactions	No hazardous reactions when stored and handled according to prescribed instructions.
Chemical Stability	Stable under recommended storage conditions.

SECTION 11. TOXICOLOGICAL INFORMATION

Acute studies have not been performed on this product as formulated. The acute toxicology information is bridged from a very similar formulation. The non-acute information pertains to the active ingredient, metribuzin.

Acute oral toxicity	female rat: LD50: 1,078 mg/kg male rat: LD50: 1,865 mg/kg
Acute dermal toxicity	male/female combined rat: LD50: > 2,000 mg/kg
Acute inhalation toxicity	male/female combined rat: LC50: 3.055 mg/l Exposure time: 4 h Determined in the form of liquid aerosol. (actual) male/female combined rat: LC50: 12.22 mg/l Exposure time: 1 h Determined in the form of liquid aerosol. Extrapolated from the 4 hr LC50. (actual)
Skin irritation	rabbit: Mild skin irritation.
Eye irritation	rabbit: Minimally irritating.
Sensitisation	guinea pig: Non-sensitizing. OECD Test Guideline 406, Buehler test
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.



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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.

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.

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

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

Toxicity to aquatic plants

Desmodium subspicatus
 Growth rate
 IC50: 0.022 mg/l
 Exposure time: 72 h
 The value mentioned relates to the active ingredient.

Acute Toxicity to Aquatic Invertebrates

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

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.



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SECTION 13. DISPOSAL CONSIDERATIONS

General Disposal Guidance	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.
Container Disposal	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	Not dangerous goods / not hazardous material
49CFR	Not dangerous goods / not hazardous material
IMDG	
UN number	3082
Class	9
Packaging group	III
Marine pollutant	YES
Description of the goods	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (METRIBUZIN SOLUTION)
IATA	
UN number	3082
Class	9
Packaging group	III
Environm. Hazardous Mark	YES
Description of the goods	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.

SECTION 15. REGULATORY INFORMATION

PCP Registration No.	29346
US Federal Regulations	
TSCA list	
Fatty acid methyl tauride sodium salt	137-20-2
Glycerine	56-81-5
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.	



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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 does not contain any substances known to the State of California to cause cancer.

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
Glycerine	56-81-5	MN, RI

Canadian Regulations

Canadian Domestic Substance List

Fatty acid methyl tauride sodium salt	137-20-2
Glycerine	56-81-5

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
Fatty acid methyl tauride sodium salt	137-20-2
Glycerine	56-81-5

SECTION 16. OTHER INFORMATION

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: Reviewed and updated for general editorial purposes. The following sections have been revised: Section 9: Physical and Chemical Properties.

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

Bayer CropScience



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Revision Date: 04/04/2013

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