

Safety Data Sheet

VIPER ADV

Revision date : 2016/11/02
Version: 5.1

Page: 1/11
(30575388/SDS_CPA_CA/EN)

1. Identification

Product identifier used on the label

VIPER ADV

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

PCP # 30626, 31422

Synonyms: Imazamox + bentazone sodium tech.

2. Hazards Identification

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

Emergency overview

WARNING:
POISON.
Eye irritant.
Potential skin sensitizer.
KEEP OUT OF REACH OF CHILDREN.
Harmful if swallowed.
May be fatal if swallowed.

Safety Data Sheet

VIPER ADV

Revision date : 2016/11/02
Version: 5.1

Page: 2/11
(30575388/SDS_CPA_CA/EN)

Potential sensitizer.
Do not get in eyes, on skin, or on clothing.
Wash thoroughly after handling.

3. Composition / Information on Ingredients

According to Hazardous Products Regulations (HPR) (SOR/2015-17)

<u>CAS Number</u>	<u>Weight %</u>	<u>Chemical name</u>
114311-32-9	1.7 %	Imazamox
50723-80-3	39.8 %	1H-2,1,3-Benzothiazin-4(3H)-one, 3-(1-methylethyl)-, 2,2-dioxide, sodium salt

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.

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: The most important known symptoms and effects are described in the labelling (see section 2) and/or in section 11., Further important symptoms and effects are so far not 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:
water spray, dry powder, foam, carbon dioxide

Special hazards arising from the substance or mixture

Safety Data Sheet

VIPER ADV

Revision date : 2016/11/02
Version: 5.1

Page: 3/11
(30575388/SDS_CPA_CA/EN)

Hazards during fire-fighting:
carbon monoxide, carbon dioxide, nitrogen oxides
The substances/groups of substances mentioned can be released in case of fire.

Advice for fire-fighters

Protective equipment for fire-fighting:
Wear self-contained breathing apparatus and chemical-protective clothing.

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

Do not breathe vapour/spray. Use personal protective clothing. Avoid contact with the skin, eyes and clothing.

Environmental precautions

Do not discharge into the subsoil/soil. Do not discharge into drains/surface waters/groundwater.

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

No special measures necessary if stored and handled correctly. Ensure thorough ventilation of stores and work areas. When using do not eat, drink or smoke. Hands and/or face should be washed before breaks and at the end of the shift.

Protection against fire and explosion:

The relevant fire protection measures should be noted. Fire extinguishers should be kept handy. Avoid all sources of ignition: heat, sparks, open flame. Sources of ignition should be kept well clear. Avoid extreme heat. Keep away from oxidizable substances. Electrical equipment should conform to national electric code. Ground all transfer equipment properly to prevent electrostatic discharge. Electrostatic discharge may cause ignition.

Conditions for safe storage, including any incompatibilities

Segregate from foods and animal feeds.

Further information on storage conditions: Keep only in the original container in a cool, dry, well-ventilated place away from ignition sources, heat or flame. Protect containers from physical damage. Protect against contamination.

Protect from temperatures below: 0 °C

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

Protect from temperatures above: 40 °C

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

Safety Data Sheet

VIPER ADV

Revision date : 2016/11/02
Version: 5.1

Page: 4/11
(30575388/SDS_CPA_CA/EN)

8. Exposure Controls/Personal Protection

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

No occupational exposure limits known.

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, Protective glove selection must be based on the user's assessment of the workplace hazards.

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). Remove 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:	alcohol-like	
Odour threshold:	Not determined due to potential health hazard by inhalation.	
Colour:	brown	
pH value:	approx. 4 - 6 (1 %(m), approx. 21 °C)	(pH Meter)
Melting point:	The product has not been tested.	
Boiling point:	approx. 100 °C	(measured)

Safety Data Sheet

VIPER ADV

Revision date : 2016/11/02
Version: 5.1

Page: 5/11
(30575388/SDS_CPA_CA/EN)

Flash point:	> 100 °C No flash point - Measurement made up to the boiling point.	(Regulation 440/2008/EC, A.9)
Flammability:	not applicable	
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:	517 °C	(Regulation 440/2008/EC, A.15)
Vapour pressure:	The product has not been tested.	
Density:	approx. 1.18 g/cm ³ (20 °C)	(OECD Guideline 109)
Vapour density:	not applicable	
Partitioning coefficient n-octanol/water (log Pow):	The statements are based on the properties of the individual components.	
<i>Information on: bentazon sodium</i>		
Partitioning coefficient n-octanol/water (log Pow):	0.77	

Thermal decomposition:	carbon monoxide, carbon dioxide, nitrogen oxide, nitrogen dioxide, Hydrocarbons Stable at ambient temperature. If product is heated above decomposition temperature, toxic vapours will be released.	
Viscosity, dynamic:	38 mPa.s (20 °C)	
Viscosity, kinematic:	17 mm ² /s (40 °C)	(OECD 114)
Solubility in water:	soluble	
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:

not fire-propagating (Regulation 440/2008/EC, A.21)

Chemical stability

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.

Safety Data Sheet

VIPER ADV

Revision date : 2016/11/02
Version: 5.1

Page: 6/11
(30575388/SDS_CPA_CA/EN)

Conditions to avoid

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

Incompatible materials

strong acids, strong bases, strong oxidizing agents

Hazardous decomposition products

Decomposition products:

Hazardous decomposition products: No hazardous decomposition products if stored and handled as prescribed/indicated.

Thermal decomposition:

Possible thermal decomposition products:

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

Stable at ambient temperature. If product is heated above decomposition temperature, toxic vapours will be released.

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: Slightly toxic after single ingestion. Relatively nontoxic after short-term skin contact. Relatively nontoxic after short-term inhalation.

Oral

Type of value: LD50

Species: rat (female)

Value: > 500 - < 2,000 mg/kg

Inhalation

Type of value: LC50

Species: rat (male/female)

Value: > 5 mg/l

Exposure time: 4 h

Dermal

Type of value: LD50

Species: rat (male/female)

Value: > 5,000 mg/kg

Assessment other acute effects

Assessment of STOT single:

Based on the available information there is no specific target organ toxicity to be expected after a single exposure.

Safety Data Sheet

VIPER ADV

Revision date : 2016/11/02
Version: 5.1

Page: 7/11
(30575388/SDS_CPA_CA/EN)

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

Irritation / corrosion

Assessment of irritating effects: May cause moderate 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: Caused skin sensitization in animal studies.

Mouse Local Lymph Node Assay (LLNA)

Species: mouse
Result: Caused skin sensitization in animal studies.

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. No substance-specific organotoxicity was observed after repeated administration to animals.

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.

Other Information

Misuse can be harmful to health.

Symptoms of Exposure

The most important known symptoms and effects are described in the labelling (see section 2) and/or in section 11., Further important symptoms and effects are so far not known.

Medical conditions aggravated by overexposure

Safety Data Sheet

VIPER ADV

Revision date : 2016/11/02
Version: 5.1

Page: 8/11
(30575388/SDS_CPA_CA/EN)

Individuals with pre-existing diseases of the respiratory system, skin or eyes may have increased susceptibility to excessive exposures.

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.

Toxicity to fish

Information on: bentazon sodium

LC50 (96 h) > 100 mg/l, *Oncorhynchus mykiss* (EPA 72-1)

Information on: imazamox

LC50 (96 h) > 119 mg/l, *Lepomis macrochirus*

Aquatic invertebrates

Information on: bentazon sodium

EC50 (48 h) > 100 mg/l, *Daphnia magna* (OECD Guideline 202, part 1)

Information on: imazamox

EC50 (48 h) > 100 mg/l, *Daphnia magna*

Aquatic plants

Information on: bentazon sodium

EC50 (7 d) 18 mg/l (growth rate), *Lemna gibba* (OECD guideline 221)

EC10 (7 d) 3.9 mg/l (growth rate), *Lemna gibba* (OECD guideline 221)

Information on: imazamox

EC10 (7 d) 0.0095 mg/l, *Lemna gibba*

EC50 (72 h) 29.1 mg/l (growth rate), *Pseudokirchneriella subcapitata*

EC50 (7 d) 0.031 mg/l (growth rate), *Lemna gibba*

Chronic toxicity to fish

Information on: bentazon sodium

No observed effect concentration (35 d) > 10 mg/l, *Pimephales promelas* (OECD Guideline 210)

Information on: imazamox

No observed effect concentration (96 d) 11.8 mg/l, *Oncorhynchus mykiss*

Chronic toxicity to aquatic invertebrates

Information on: bentazon sodium

No observed effect concentration (21 d) > 101 mg/l, *Daphnia magna* (OECD Guideline 202, part 2)

Safety Data Sheet

VIPER ADV

Revision date : 2016/11/02
Version: 5.1

Page: 9/11
(30575388/SDS_CPA_CA/EN)

Information on: imazamox
No observed effect concentration (21 d) 137 mg/l, Daphnia magna

Persistence and degradability

Assessment biodegradation and elimination (H₂O)

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

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: bentazon sodium

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

Information on: imazamox

Bioconcentration factor: < 1, Lepomis macrochirus (OECD-Guideline 305)

Does not accumulate in organisms.

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: bentazon sodium

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

Information on: imazamox

The substance will not evaporate into the atmosphere from the water surface.

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.

Safety Data Sheet

VIPER ADV

Revision date : 2016/11/02
Version: 5.1

Page: 10/11
(30575388/SDS_CPA_CA/EN)

Container disposal:

Rinse the container or liner as needed for disposal. Add rinsate to spray tank. Recommend crushing, puncturing or other means to prevent unauthorized use of used containers. Consult the product label for additional details.

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, N.O.S. (contains IMAZAMOX)

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 IMAZAMOX)

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.

16. Other Information

SDS Prepared by:

BASF NA Product Regulations
SDS Prepared on: 2016/11/02

Safety Data Sheet

VIPER ADV

Revision date : 2016/11/02
Version: 5.1

Page: 11/11
(30575388/SDS_CPA_CA/EN)

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