

Safety Data Sheet

Pentia Plant Regulator

Revision date : 2019/01/16
Version: 2.0

Page: 1/11
(30204835/SDS_CPA_US/EN)

1. Identification

Product identifier used on the label

Pentia Plant Regulator

Recommended use of the chemical and restriction on use

Recommended use*: crop protection product, growth regulator

Recommended use*: crop protection product; growth regulator

* 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 CORPORATION
100 Park Avenue
Florham Park, NJ 07932, USA

Telephone: +1 973 245-6000

Emergency telephone number

CHEMTREC: 1-800-424-9300
BASF HOTLINE: 1-800-832-HELP (4357)

Other means of identification

Substance number: 643021
EPA Registration number: 7969-191

2. Hazards Identification

According to Regulation 2012 OSHA Hazard Communication Standard; 29 CFR Part 1910.1200

Classification of the product

No need for classification according to GHS criteria for this product.

Label elements

The product does not require a hazard warning label in accordance with GHS criteria.

Safety Data Sheet

Pentia Plant Regulator

Revision date : 2019/01/16
Version: 2.0

Page: 2/11
(30204835/SDS_CPA_US/EN)

Hazards not otherwise classified

Labeling of special preparations (GHS):

May produce an allergic reaction. Contains: 1,2-benzisothiazol-3(2H)-one

3. Composition / Information on Ingredients

According to Regulation 2012 OSHA Hazard Communication Standard; 29 CFR Part 1910.1200

<u>CAS Number</u>	<u>Weight %</u>	<u>Chemical name</u>
245735-90-4	9.6 %	mepiquat pentaborate

4. First-Aid Measures

Description of first aid measures

General advice:

Remove contaminated clothing.

If inhaled:

Keep patient calm, remove to fresh air.

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:

Rinse mouth and then drink 200-300 ml of water.

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) symptoms and / or effects are not known so far

Indication of any immediate medical attention and special treatment needed

Note to physician

Treatment: Symptomatic treatment (decontamination, vital functions).

5. Fire-Fighting Measures

Extinguishing media

Special hazards arising from the substance or mixture

Hazards during fire-fighting:

carbon monoxide, carbon dioxide, nitrogen oxides, sulfur oxides

The substances/groups of substances mentioned can be released in case of fire.

Advice for fire-fighters

Safety Data Sheet

Pentia Plant Regulator

Revision date : 2019/01/16
Version: 2.0

Page: 3/11
(30204835/SDS_CPA_US/EN)

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

Further information:

In case of fire and/or explosion do not breathe fumes. Keep containers cool by spraying with water if exposed to fire. Collect contaminated extinguishing water separately, do not allow to reach sewage or effluent systems. Dispose of fire debris and contaminated extinguishing water in accordance with official regulations.

6. Accidental release measures

Personal precautions, protective equipment and emergency procedures

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

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

For small amounts: Pick up with suitable absorbent material (e.g. sand, sawdust, general-purpose binder, kieselguhr).

For large amounts: Dike spillage. Pump off product.

Dispose of absorbed material in accordance with regulations. Collect waste in suitable containers, which can be labeled and sealed. Clean contaminated floors and objects thoroughly with water and detergents, observing environmental regulations.

7. Handling and Storage

Precautions for safe handling

RECOMMENDATIONS ARE FOR MANUFACTURING, COMMERCIAL BLENDING, AND PACKAGING WORKERS. PESTICIDE APPLICATORS & WORKERS must refer to the Product Label and Directions for Use attached to the product for Agricultural Use Requirements in accordance with the EPA Worker Protection Standard 40 CFR part 170. Ensure adequate ventilation. Provide good ventilation of working area (local exhaust ventilation if necessary). 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. Do not open until ready to use. Once container is opened, content should be used as soon as possible. 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 foods and animal feeds.

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

Safety Data Sheet

Pentia Plant Regulator

Revision date : 2019/01/16
Version: 2.0

Page: 4/11
(30204835/SDS_CPA_US/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

RECOMMENDATIONS FOR MANUFACTURING, COMMERCIAL BLENDING, AND PACKAGING WORKERS:

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:

The statements on personal protective equipment in the instructions for use apply when handling crop-protection agents in final-consumer packing. Wearing of closed work clothing is recommended. Store work clothing separately. Keep away from food, drink and animal feeding stuffs.

9. Physical and Chemical Properties

Form:	liquid
Odour:	characteristic
Odour threshold:	Not determined due to potential health hazard by inhalation.
Colour:	blue, clear
pH value:	approx. 6 - 8 (20 °C)
Melting temperature:	The product has not been tested.
boiling temperature:	approx. 100 °C Information applies to the solvent.
Flash point:	> 100 °C
Flammability:	Based on the structure or composition there is no indication of flammability

Safety Data Sheet

Pentia Plant Regulator

Revision date : 2019/01/16
Version: 2.0

Page: 5/11
(30204835/SDS_CPA_US/EN)

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:	> 600 °C
Vapour pressure:	approx. 23 hPa (20 °C) Information applies to the solvent.
Density:	approx. 1.037 g/cm ³ (20 °C)
Vapour density:	not applicable
Information on: Piperidinium, 1,1-dimethyl-, salt with boric acid (H5B5O10) (1:1)	
Partitioning coefficient n-octanol/water (log Pow):	-3.55 (OECD Guideline 107)
Information on: 1,2-benzisothiazol-3(2H)-one	
Partitioning coefficient n-octanol/water (log Pow):	0.64 (calculated) (25 °C)

Thermal decomposition:	No decomposition if stored and handled as prescribed/indicated.
Viscosity, dynamic:	approx. 1.6 mPa.s
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:

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

Chemical stability

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

Possibility of hazardous reactions

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

Conditions to avoid

See MSDS section 7 - Handling and storage.

Incompatible materials

strong acids, strong bases, strong oxidizing agents

Hazardous decomposition products

Decomposition products:

Safety Data Sheet

Pentia Plant Regulator

Revision date : 2019/01/16
Version: 2.0

Page: 6/11
(30204835/SDS_CPA_US/EN)

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

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: The product has not been tested. The statement has been derived from the properties of the individual components. Virtually nontoxic after a single ingestion. Virtually nontoxic by inhalation. Virtually nontoxic after a single skin contact.

Oral

Type of value: ATE
Value: > 5,000 mg/kg

Information on: Piperidinium, 1,1-dimethyl-, salt with boric acid (H5B5O10) (1:1)

Type of value: LD50

Species: rat

Value: > 500 - < 1,000 mg/kg (OECD Guideline 401)

Information on: 1,2-benzisothiazol-3(2H)-one

Type of value: LD50

Species: rat (male/female)

Value: 1,450 mg/kg

Literature data.

Inhalation

Type of value: ATE
Value: > 20.0000 mg/l
Determined for vapor

Type of value: ATE
Value: > 5.0000 mg/l
Determined for mist

Information on: Piperidinium, 1,1-dimethyl-, salt with boric acid (H5B5O10) (1:1)

Type of value: LC50

Species: rat

Value: > 2.63 mg/l (OECD Guideline 403)

Exposure time: 4 h

An aerosol was tested.

No mortality was observed.

Dermal

Type of value: ATE

Safety Data Sheet

Pentia Plant Regulator

Revision date : 2019/01/16
Version: 2.0

Page: 7/11
(30204835/SDS_CPA_US/EN)

Value: > 5,000 mg/kg

Information on: Piperidinium, 1,1-dimethyl-, salt with boric acid (H5B5O10) (1:1)

Type of value: LD50

Species: rat

Value: > 2,000 mg/kg (OECD Guideline 402)

No mortality was observed.

Information on: 1,2-benzisothiazol-3(2H)-one

Type of value: LD50

Species: rat (male/female)

Value: > 5,000 mg/kg

Literature data.

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.

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

Irritation / corrosion

Assessment of irritating effects: The product has not been tested. The statement has been derived from the properties of the individual components. Not irritating to the skin. Not irritating to the eyes.

Skin

Information on: Piperidinium, 1,1-dimethyl-, salt with boric acid (H5B5O10) (1:1)

Species: rabbit

Result: non-irritant

Method: Guideline 92/69/EEC, B.4

Information on: 1,2-benzisothiazol-3(2H)-one

Species: rabbit

Result: Irritant.

Literature data.

Eye

Information on: Piperidinium, 1,1-dimethyl-, salt with boric acid (H5B5O10) (1:1)

Species: rabbit

Result: non-irritant

Method: Guideline 92/69/EEC, B.5

Information on: 1,2-benzisothiazol-3(2H)-one

Species: rabbit

Result: Severely irritating.

Literature data.

Sensitization

Assessment of sensitization: The product has not been tested. The statement has been derived from the properties of the individual components. There is no evidence of a skin-sensitizing potential.

Information on: Piperidinium, 1,1-dimethyl-, salt with boric acid (H5B5O10) (1:1)

Safety Data Sheet

Pentia Plant Regulator

Revision date : 2019/01/16
Version: 2.0

Page: 8/11
(30204835/SDS_CPA_US/EN)

modified Buehler test
Species: guinea pig
Result: Non-sensitizing.
Method: OECD Guideline 406

Information on: 1,2-benzisothiazol-3(2H)-one
Guinea pig maximization test
Species: guinea pig
Result: Caused skin sensitization in animal studies.
Method: OECD Guideline 406
Literature data.

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. 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) symptoms and / or effects are not known so far

12. Ecological Information

Toxicity

Aquatic toxicity

Safety Data Sheet

Pentia Plant Regulator

Revision date : 2019/01/16
Version: 2.0

Page: 9/11
(30204835/SDS_CPA_US/EN)

Assessment of aquatic toxicity:

There is a high probability that the product is not acutely harmful to fish. Acutely harmful for aquatic invertebrates. There is a high probability that the product is not acutely harmful to aquatic plants.

Toxicity to fish

*Information on: 1,2-benzisothiazol-3(2H)-one
LC50 (96 h) 1.6 mg/l, Oncorhynchus mykiss (Flow through.)
Literature data.*

Aquatic invertebrates

*Information on: 1,2-benzisothiazol-3(2H)-one
EC50 (48 h) 2.1 mg/l, Daphnia magna (static)
Literature data.*

Aquatic plants

*Information on: 1,2-benzisothiazol-3(2H)-one
EC50 (96 h) 0.110 mg/l, Pseudokirchneriella subcapitata (OECD Guideline 201, static)
No observed effect concentration (96 h) 0.040 mg/l, Pseudokirchneriella subcapitata (OECD Guideline 201, static)*

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.

Assessment bioaccumulation potential

Information on: Piperidinium, 1,1-dimethyl-, salt with boric acid (H5B5O10) (1:1)

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: Piperidinium, 1,1-dimethyl-, salt with boric acid (H5B5O10) (1:1)

Following exposure to soil, adsorption to solid soil particles is probable, therefore contamination of groundwater is not expected.

Safety Data Sheet

Pentia Plant Regulator

Revision date : 2019/01/16
Version: 2.0

Page: 10/11
(30204835/SDS_CPA_US/EN)

Additional information

Other ecotoxicological advice:
Do not discharge product into the environment without control.

13. Disposal considerations

Waste disposal of substance:

Pesticide wastes are regulated. Improper disposal of excess pesticide, spray mix or rinsate is a violation of federal law. If pesticide wastes cannot be disposed of according to label instructions, contact the State Pesticide or Environmental Control Agency or the Hazardous Waste representative at the nearest EPA Regional Office for guidance.

Container disposal:

Rinse thoroughly at least three times (triple rinse) in accordance with EPA recommendations. Consult state or local disposal authorities for approved alternative procedures such as container recycling. Recommend crushing, puncturing or other means to prevent unauthorized use of used containers.

RCRA:

This product is not regulated by RCRA.

14. Transport Information

Land transport

USDOT

Not classified as a dangerous good under transport regulations

Sea transport

IMDG

Not classified as a dangerous good under transport regulations

Air transport

IATA/ICAO

Not classified as a dangerous good under transport regulations

15. Regulatory Information

Federal Regulations

Registration status:

Crop Protection TSCA, US released / exempt

Chemical TSCA, US blocked / not listed

EPCRA 311/312 (Hazard categories): Refer to SDS section 2 for GHS hazard classes applicable for this product.

Labeling requirements under FIFRA

Safety Data Sheet

Pentia Plant Regulator

Revision date : 2019/01/16
Version: 2.0

Page: 11/11
(30204835/SDS_CPA_US/EN)

This chemical is a pesticide product registered by the Environmental Protection Agency and is subject to certain labeling requirements under federal pesticide law. These requirements differ from the classification criteria and hazard information required for safety data sheets, and workplace labels of non-pesticide chemicals. Following is the hazard information as required on the pesticide label.

CAUTION:

KEEP OUT OF REACH OF CHILDREN.
KEEP OUT OF REACH OF DOMESTIC ANIMALS.
HARMFUL IF ABSORBED THROUGH SKIN.

Avoid contact with the skin, eyes and clothing.

Wash thoroughly after handling.

16. Other Information

SDS Prepared by:

BASF NA Product Regulations

SDS Prepared on: 2019/01/16

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.

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