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## 1. Identification

## Product identifier used on the label

# Permacap CS Controlled Release Insecticide

#### Recommended use of the chemical and restriction on use

Recommended use\*: crop protection product, insecticide

## 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**

24 Hour Emergency Response Information

CHEMTREC: 1-800-424-9300

BASF HOTLINE: 1-800-832-HELP (4357)

## Other means of identification

Substance number: 934685
EPA Registration number: 499-528
Synonyms: permethrin

## 2. Hazards Identification

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

## Classification of the product

Asp. Tox.	1	Aspiration hazard
Carc.	2	Carcinogenicity

STOT RE 2 Specific target organ toxicity — repeated

exposure

Aquatic Acute 1 Hazardous to the aquatic environment - acute

<sup>\*</sup> 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.

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Aquatic Chronic

Hazardous to the aquatic environment - chronic

#### Label elements

#### Pictogram:



## Signal Word:

Danger

#### Hazard Statement:

H304 May be fatal if swallowed and enters airways.

H373 May cause damage to organs through prolonged or repeated exposure.

H351 Suspected of causing cancer. H400 Very toxic to aquatic life.

H410 Very toxic to aquatic life with long lasting effects.

## Precautionary Statements (Prevention):

P280 Wear protective gloves, protective clothing and eye protection or face

protection.

P273 Avoid release to the environment.
P201 Obtain special instructions before use.

P260 Do not breathe mist or vapour.

P202 Do not handle until all safety precautions have been read and

understood.

## Precautionary Statements (Response):

P301 + P310 IF SWALLOWED: Immediately call a POISON CENTER or physician.

P308 + P313 IF exposed or concerned: Get medical attention.

P391 Collect spillage.

P331 Do NOT induce vomiting.

# Precautionary Statements (Storage): P405 Store locked up.

## Precautionary Statements (Disposal):

P501 Dispose of contents/container in accordance with local regulations.

### Hazards not otherwise classified

## Labeling of special preparations (GHS):

May produce an allergic reaction. Contains: 3,5,7-Triaza-1-azoniatricyclo[3.3.1.13,7]decane, 1-[(2Z)-3-chloro-2-propen-1-yl]-, chloride (1:1)

May cause paraesthesia. permethrin

## 3. Composition / Information on Ingredients

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

## Permethrin

CAS Number: 52645-53-1 Content (W/W): 23.0 % Synonym: Permethrin

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Diphenylmethane-4,4'-diisocyanate (MDI)

CAS Number: 101-68-8 Content (W/W): 0.1 - 1.0%

Synonym: Diphenylmethane diisocyanate; 4,4'-Methylenediphenyl diisocyanate

1,1'-Biphenyl, bis(1-methylethyl)-

CAS Number: 69009-90-1 Content (W/W): 10.0 - 15.0% Synonym: No data available.

3,5,7-Triaza-1-azoniatricyclo[3.3.1.13,7]decane, 1-[(2Z)-3-chloro-2-propen-1-yl]-, chloride (1:1)

CAS Number: 51229-78-8 Content (W/W): 0.1 - 1.0% Synonym: No data available.

Diphenylmethane Diisocyanate, isomers and homologues

CAS Number: 9016-87-9 Content (W/W): 0.1 - 1.0%

Synonym: Isocyanic acid polymethylenepolyphenylene ester; Polymethylene

polyphenylene isocyanate

#### 4. First-Aid Measures

## **Description of first aid measures**

#### General advice:

First aid personnel should pay attention to their own safety. If the patient is likely to become unconscious, place and transport in stable sideways position (recovery position). Immediately remove contaminated clothing.

#### If inhaled:

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

#### If on skin:

Immediately wash thoroughly with soap and water, seek medical attention.

#### If in eves:

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. Do not induce vomiting due to aspiration hazard.

## Most important symptoms and effects, both acute and delayed

Symptoms: Information, i.e. additional information on symptoms and effects may be included in the GHS labeling phrases available in Section 2 and in the Toxicological assessments available 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: Treat according to symptoms (decontamination, vital functions), no known specific antidote.

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## 5. Fire-Fighting Measures

## **Extinguishing media**

Suitable extinguishing media: water spray, dry powder, foam, carbon dioxide

## Special hazards arising from the substance or mixture

Hazards during fire-fighting:

carbon monoxide, Hydrogen chloride, carbon dioxide, nitrogen oxides, halogenated compounds, ammonia oxides, potassium oxides, cyanides, silica compounds

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:

Keep containers cool by spraying with water if exposed to fire. In case of fire and/or explosion do not breathe fumes. 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

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.

## 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 against heat. Protect contents from the effects of light. 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. 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

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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.

## 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

Permethrin ACGIH, US: TWA value 5 mg/m3;

OSHA Z1: PEL 5 mg/m3;
OSHA Z1A: TWA value 5 mg/m3;

## 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:

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.

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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: characteristic

Odour threshold: Not determined due to respiratory tract sensitizing properties.

Colour: off-white pH value: approx. 6 - 8

(1 %(m), approx. 23 °C)

Melting point: approx. 0 °C

Information applies to the solvent.

Boiling point: approx. 100 °C

Information applies to the solvent.

Flash point: > 85 °C

No flash point - Measurement made up to the indicated temperature, pilot

light extinguishes.

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: Based on the water content the

product does not ignite. The product has not been tested. The statement has been derived from the properties

of the individual components.

Vapour pressure: approx. 23 hPa

(20°C)

Information applies to the solvent.

Density: approx. 1.05 g/cm3

(20°C)

Vapour density: not applicable Partitioning coefficient n- not applicable

octanol/water (log Pow):

Thermal decomposition: No decomposition if stored and handled as

prescribed/indicated.

Viscosity, dynamic: approx. 143 mPa.s

(23 °C)

Solubility in water: (20 °C)

dispersible

Evaporation rate: not applicable

Other Information: If necessary, information on other physical and chemical

parameters is indicated in this section.

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## 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 SDS section 7 - Handling and storage.

## 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:

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 substances/products of a similar structure or composition. Virtually nontoxic after a single ingestion. Virtually nontoxic by inhalation. Virtually nontoxic after a single skin contact.

#### Oral

Type of value: LD50 Species: rat (female)

Value: > 5,000 mg/kg (EPA Guideline)

No mortality was observed.

#### Inhalation

Type of value: LC50 Species: rat (male/female) Value: > 2.07 mg/l (other) Exposure time: 4 h

No mortality was observed.

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## **Dermal**

Type of value: LD50 Species: rat (male/female) Value: > 5,000 mg/kg (other) No mortality was observed.

#### 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 substances/products of a similar structure or composition. Not irritating to the eyes. Not irritating to the skin.

## Skin

Species: rabbit Result: non-irritant

Method: OPP 81-5 (EPA-Guideline)

#### Eye

Species: rabbit Result: non-irritant Method: EPA Guideline

## Sensitization

Assessment of sensitization: The product has not been tested. The statement has been derived from substances/products of a similar structure or composition. There is no evidence of a skin-sensitizing potential.

#### Buehler test

Species: guinea pig

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

Method: other

## Aspiration Hazard

The product has not been tested. The statement has been derived from the properties of the individual components. May also damage the lung at swallowing (aspiration hazard).

## **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: 1,1'-Biphenyl, bis(1-methylethyl)-

Assessment of repeated dose toxicity: Repeated oral exposure may affect certain organs.

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## 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.

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#### Carcinogenicity

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

Information on: permethrin

Assessment of carcinogenicity: Indication of possible carcinogenic effect in animal tests.

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#### Reproductive toxicity

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

Information on: 3,5,7-Triaza-1-azoniatricyclo[3.3.1.13,7]decane, 1-[(2Z)-3-chloro-2-propen-1-yl]-, chloride (1:1)

Assessment of reproduction toxicity: The results of animal studies suggest a fertility impairing effect.

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#### **Teratogenicity**

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

Information on: permethrin

Assessment of teratogenicity: The substance did not cause malformations in animal studies. When given in high doses embryotoxicity was observed.

Information on: 3,5,7-Triaza-1-azoniatricyclo[3.3.1.13,7]decane, 1-[(2Z)-3-chloro-2-propen-1-yl]-, chloride (1:1)

Assessment of teratogenicity: Indications of possible developmental toxicity/teratogenicity were seen in animal studies.

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#### Other Information

Misuse can be harmful to health.

## 12. Ecological Information

## **Toxicity**

Aquatic toxicity

Assessment of aquatic toxicity:

Very toxic to aquatic life with long lasting effects.

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

## Toxicity to fish

Information on: permethrin

LC50 (96 h) 0.012 mg/l, Salmo salar

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## Aquatic invertebrates

Information on: permethrin

EC50 (96 h) 0.000019 mg/l, Americamysis bahia

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#### Aquatic plants

Information on: permethrin

No data available.

#### Chronic toxicity to fish

Information on: permethrin

No observed effect concentration 0.0003 mg/l, Pimephales promelas

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#### Chronic toxicity to aquatic invertebrates

Information on: permethrin

No observed effect concentration (30 d) 0.000011 mg/l, Mysidopsis bahia

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## 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.

## Assessment biodegradation and elimination (H2O)

Information on: permethrin

Not readily biodegradable (by OECD criteria).

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## 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: permethrin

Bioconcentration factor: 570 - 610, Lepomis macrochirus

Accumulation in organisms is not to be expected.

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## 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: permethrin

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

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## **Additional information**

Other ecotoxicological advice:

Do not discharge product into the environment without control.

## 13. Disposal considerations

## Waste disposal of substance:

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.

## 14. Transport Information

## Land transport

**USDOT** 

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 PERMETHRIN)

## 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 PERMETHRIN)

## 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 PERMETHRIN)

## **Further information**

Product may be shipped as non-hazardous in suitable packages containing a net quantity of 5 L or less under the provisions of various regulatory agencies: ADR, RID, ADN: Special Provision 375; IMDG: 2.10.2.7; IATA: A197; TDG: Special Provision 99(2); 49CFR: §171.4 (c) (2).

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## 15. Regulatory Information

#### **Federal Regulations**

### Registration status:

Chemical TSCA, US blocked / not listed

Crop Protection TSCA, US released / exempt

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

**EPCRA 313:** 

<u>CAS Number</u> <u>Chemical name</u> 52645-53-1 Permethrin

CERCLA RQ<br/>1 LBSCAS Number<br/>52645-53-1Chemical name<br/>Permethrin

#### **State regulations**

State RTKCAS NumberChemical nameNJ52645-53-1PermethrinPA52645-53-1Permethrin

## Safe Drinking Water & Toxic Enforcement Act, CA Prop. 65:

#### BASF Risk Assessment, CA Prop. 65:

Based on an evaluation of the product's composition and the use(s), this product does not require a California Proposition 65 Warning.

## Labeling requirements under FIFRA

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.

Wash thoroughly after handling.

## 16. Other Information

#### SDS Prepared by:

BASF NA Product Regulations SDS Prepared on: 2021/04/27

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

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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.

IMPORTANT: WHILE THE DESCRIPTIONS, DESIGNS, DATA AND INFORMATION CONTAINED HEREIN ARE PRESENTED IN GOOD FAITH AND BELIEVED TO BE ACCURATE, IT IS PROVIDED FOR YOUR GUIDANCE ONLY. BECAUSE MANY FACTORS MAY AFFECT PROCESSING OR APPLICATION/USE, WE RECOMMEND THAT YOU MAKE TESTS TO DETERMINE THE SUITABILITY OF A PRODUCT FOR YOUR PARTICULAR PURPOSE PRIOR TO USE. NO WARRANTIES OF ANY KIND, EITHER EXPRESSED OR IMPLIED, INCLUDING WARRANTIES OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE, ARE MADE REGARDING PRODUCTS DESCRIBED OR DESIGNS, DATA OR INFORMATION SET FORTH, OR THAT THE PRODUCTS, DESIGNS, DATA OR INFORMATION MAY BE USED WITHOUT INFRINGING THE INTELLECTUAL PROPERTY RIGHTS OF OTHERS. IN NO CASE SHALL THE DESCRIPTIONS, INFORMATION, DATA OR DESIGNS PROVIDED BE CONSIDERED A PART OF OUR TERMS AND CONDITIONS OF SALE. FURTHER, YOU EXPRESSLY UNDERSTAND AND AGREE THAT THE DESCRIPTIONS, DESIGNS, DATA, AND INFORMATION FURNISHED BY OUR COMPANY HEREUNDER ARE GIVEN GRATIS AND WE ASSUME NO OBLIGATION OR LIABILITY FOR THE DESCRIPTION, DESIGNS, DATA AND INFORMATION GIVEN OR RESULTS OBTAINED, ALL SUCH BEING GIVEN AND ACCEPTED AT YOUR RISK. **END OF DATA SHEET**