

# Safety Data Sheet

## CARIFEND CONTINUOUS PROTECTION SYSTEM

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### 1. Identification

#### Product identifier used on the label

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

Recommended use\*: insecticide

\* 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: 414488  
EPA Register number: 7969-367  
Chemical family: pyrethroid, insecticide  
Synonyms: alphacypermethrin

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### 2. Hazards Identification

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

#### Classification of the product

Aquatic Acute	1	Hazardous to the aquatic environment - acute
Aquatic Chronic	1	Hazardous to the aquatic environment - chronic

#### Label elements

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

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**According to Regulation 1994 OSHA Hazard Communication Standard; 29 CFR Part 1910.1200**

### Emergency overview

#### CAUTION:

Avoid prolonged and/or repeated contact with the skin.  
May cause paraesthesia.  
Wash thoroughly after handling.

### 3. Composition / Information on Ingredients

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

<u>CAS Number</u>	<u>Content (W/W)</u>	<u>Chemical name</u>
67375-30-8	0.34 %	alpha-Cypermethrin
25038-59-9	75.0 - 100.0 %	Polyethyleneterephthalate (PET)

**According to Regulation 1994 OSHA Hazard Communication Standard; 29 CFR Part 1910.1200**

<u>CAS Number</u>	<u>Content (W/W)</u>	<u>Chemical name</u>
67375-30-8	0.34 %	alpha-Cypermethrin
	>= 97.0 %	Netting

### 4. First-Aid Measures

#### Description of first aid measures

##### General advice:

First aid providers should wear personal protective equipment to prevent exposure. Remove contaminated clothing. Move person to fresh air. If person is not breathing, call 911 or ambulance, then give artificial respiration, preferably mouth-to-mouth if possible. Call a poison control center or physician for treatment advice. Have the product container or label with you when calling a poison control center or doctor or going for treatment.

##### If inhaled:

Remove the affected individual into fresh air and keep the person calm.

##### If on skin:

Rinse skin immediately with plenty of water for 15 - 20 minutes.

##### If swallowed:

Never induce vomiting or give anything by mouth if the victim is unconscious or having convulsions. Do not induce vomiting. Have person sip a glass of water if able to swallow.

#### 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

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### Note to physician

Antidote: No known specific antidote.  
Treatment: Treat symptomatically.

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## 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, hydrogen cyanide, acetaldehyde, nitrogen oxides  
If product is heated above decomposition temperature, toxic vapours will be released.

**carbon monoxide, carbon dioxide,  
The substances/groups of substances mentioned can be released in case of 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.

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## 6. Accidental release measures

### Personal precautions, protective equipment and emergency procedures

Avoid contact with the skin, eyes and clothing.

### Environmental precautions

Dispose of in compliance with the environmental protection requirements. Do not discharge effluent containing this product to sewer systems without previously notifying the sewage treatment plant authority. Contain contaminated water/firefighting water.

### Methods and material for containment and cleaning up

Pick up mechanically. Reclaim for processing if possible. Avoid raising dust. Wear suitable protective equipment. Place into appropriately labeled waste containers.

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## 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. Avoid dust formation. Avoid contact with the skin, eyes and clothing. Wear suitable personal protective clothing and equipment.

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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.

### 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 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. The authority permits and storage regulations must be observed.

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## 8. Exposure Controls/Personal Protection

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

### 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:

Breathing protection if dusts are formed.

#### 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. 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:

RECOMMENDATIONS FOR MANUFACTURING, COMMERCIAL BLENDING, AND PACKAGING WORKERS 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.

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## 9. Physical and Chemical Properties

Form: fabric

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Odour:	odourless	
Odour threshold:		not applicable, odour not perceivable
Colour:	white	
pH value:		not applicable
Melting point:	> 250 °C	
Boiling point:		not determined
Flash point:		not applicable
Flammability:	Based on the chemical structure there is no indication of flammability	
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.
Vapour pressure:		The value has not be determined because of the high melting point.
Density:		Study technically not feasible.
Vapour density:		not applicable
Partitioning coefficient n-octanol/water (log Pow):		not applicable
Self-ignition temperature:	approx. 500 °C	The statements are based on the properties of the individual components.
Thermal decomposition:	> 340 °C carbon monoxide, carbon dioxide, hydrogen cyanide, acetaldehyde, nitrogen oxide Stable at ambient temperature. If product is heated above decomposition temperature toxic vapours may be released. If product is heated above decomposition temperature hazardous fumes may be released.	
Viscosity, dynamic:		not applicable
Solubility in water:		immiscible
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.

### Corrosion to metals:

Corrosive effects to metal are not anticipated.

### 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

See MSDS section 7 - Handling and storage.

### Incompatible materials

strong acids, strong bases, strong oxidizing agents

### Hazardous decomposition products

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:

> 340 °C

Possible thermal decomposition products:

carbon monoxide, carbon dioxide, hydrogen cyanide, acetaldehyde, nitrogen oxide

Stable at ambient temperature. If product is heated above decomposition temperature toxic vapours may be released. If product is heated above decomposition temperature hazardous fumes may be released.

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

#### Oral

*Information on: alpha-Cypermethrin*

*Type of value: LD50*

*Species: rat (male/female)*

*Value: 57 mg/kg (OECD Guideline 401)*

#### Inhalation

*Information on: alpha-Cypermethrin*

*Type of value: LC50*

*Species: rat (male/female)*

*Value: 2.29 mg/l (OECD Guideline 403)*

*Exposure time: 4 h*

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*Tested as dust aerosol.*  
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### Dermal

*Information on: alpha-Cypermethrin*  
*Type of value: LD50*  
*Species: rat (male/female)*  
*Value: > 2,000 mg/kg (OECD Guideline 402)*  
*No mortality was observed.*  
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### Irritation / corrosion

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

### Sensitization

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

*Information on: alpha-Cypermethrin*  
*Guinea pig maximization test*  
*Species: guinea pig*  
*Result: Non-sensitizing.*  
*Method: OECD Guideline 406*  
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## **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: alpha-cypermethrin*  
*Assessment of repeated dose toxicity: Repeated oral exposure may affect certain organs. Damages the peripheral nerve system.*  
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### Genetic toxicity

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

### Carcinogenicity

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

### Reproductive toxicity

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

### 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**

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.

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## 12. Ecological Information

### **Toxicity**

#### Aquatic toxicity

Assessment of aquatic toxicity:

Very toxic to aquatic organisms. May cause long-term adverse effects in the aquatic environment. The product has not been tested. The statement has been derived from the properties of the individual components.

#### Toxicity to fish

*Information on: alpha-cypermethrin*

*LC50 (96 h) 0.00093 mg/l, Pimephales promelas (OPP 72-1 (EPA-Guideline), Flow through.)*

*No observed effect concentration (34 d) 0.00003 mg/l, Pimephales promelas*

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#### Aquatic invertebrates

*Information on: alpha-cypermethrin*

*EC50 (48 h) 0.000013 mg/l 12,6 ng/L, Chironomus riparius (OECD Guideline 202, part 1, static)*

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#### Aquatic plants

*Information on: alpha-cypermethrin*

*EC50 (72 h) > 1 mg/l (growth rate), Scenedesmus subspicatus (OECD Guideline 201, static)*

*No observed effect concentration (7 d) >= 1,39 µg/L (growth rate), Lemna gibba (OECD guideline 221, static)*

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#### Chronic toxicity to fish

*Information on: alpha-cypermethrin*

*No observed effect concentration (34 d) 0,03 µg/L, Pimephales promelas (OPP 72-4 (EPA-Guideline), Flow through.)*

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#### Chronic toxicity to aquatic invertebrates

*Information on: alpha-cypermethrin*

*No observed effect concentration (28 d) 0,024 µg/L, Chironomus riparius (OECD 219, static)*

*No observed effect concentration (21 d) 0,03 µg/L, Daphnia magna (OPP 72-4 (EPA-Guideline), semistatic)*

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### **Persistence and degradability**



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### Assessment biodegradation and elimination (H<sub>2</sub>O)

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: alpha-cypermethrin*

*Bioconcentration factor: 155 - 910 (73 d), Cyprinus carpio (OECD Guideline 305 C)*  
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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: alpha-cypermethrin*

*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.

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## 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:**

Dispose of in accordance with national, state and local regulations.

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## 14. Transport Information

### **Land transport**

USDOT

Hazard class:	9
Packing group:	III
ID number:	UN 3077
Hazard label:	9, EHSM
Proper shipping name:	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S. (contains NET IMPREGNATED WITH ALPHA-CYPERMETHRIN)

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### Sea transport

IMDG

Hazard class: 9  
Packing group: III  
ID number: UN 3077  
Hazard label: 9, EHS  
Marine pollutant: YES  
Proper shipping name: ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S.  
(contains NET IMPREGNATED WITH ALPHA-CYPERMETHRIN)

### Air transport

IATA/ICAO

Hazard class: 9  
Packing group: III  
ID number: UN 3077  
Hazard label: 9, EHS  
Proper shipping name: ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S.  
(contains NET IMPREGNATED WITH ALPHA-CYPERMETHRIN)

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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):** Chronic;

### State regulations

#### CA Prop. 65:

WARNING: THIS PRODUCT CONTAINS A CHEMICAL(S) KNOWN TO THE STATE OF CALIFORNIA TO CAUSE CANCER AND BIRTH DEFECTS OR OTHER REPRODUCTIVE HARM.

### **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:

Avoid contact with the skin, eyes and clothing.

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May cause paraesthesia.  
Wash thoroughly after handling.

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### 16. Other Information

**SDS Prepared by:**  
BASF NA Product Regulations  
SDS Prepared on: 2015/03/26

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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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.  
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