

Revision date : 2011/03/25 Page: 1/8
Version: 2.0 (30545983/SDS_CPA_US/EN)

1. Product and Company Identification

Use: crop protection product, insecticide

Company
BASF CORPORATION
100 Campus Drive
Florham Park, NJ 07932, USA

24 Hour Emergency Response Information

CHEMTREC: 1-800-424-9300 BASF HOTLINE: 1-800-832-HELP

Registrant:

Whitmire Micro-Gen Research Laboratories, Inc. 3568 Tree Court Industrial Blvd. St. Louis, MO 63122

Substance number: 000000463659

Synonyms: Pyriproxyfen + Prallethrin + Dinotefuran

2. Hazards Identification

Emergency overview

CAUTION:

KEEP OUT OF REACH OF CHILDREN.

Contains petroleum distillates.

Avoid contact with the skin, eyes and clothing.

Wash thoroughly after handling.

Aerosol container contains flammable gas under pressure.

See Product Label for additional precautionary statements.

State of matter: liquid Colour: whitish Odour: solvent-like

Potential health effects

Primary routes of exposure:

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

Acute toxicity:

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

Irritation / corrosion:

Revision date: 2011/03/25 Page: 2/8 Version: 2.0 (30545983/SDS_CPA_US/EN)

May cause slight irritation to the skin. May cause moderate but temporary irritation to the eyes.

Sensitization

Skin sensitizing effects were not observed in animal studies.

3. Composition / Information on Ingredients

CAS Number	Content (W/W)	Chemical name
165252-70-0	0.25 %	Dinotefuran
95737-68-1	0.1 %	Pyriproxyfen
23031-36-9	0.05 %	Prallethrin
64742-47-8	<= 10.0 %	Distillates (petroleum), hydrotreated light
68476-40-4	<= 15.0 %	liquified petroleum gas propellant
	<= 75.0 %	Proprietary ingredients

4. 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 in eyes

Hold eyes open and rinse slowly and gently with water for 15 to 20 minutes. Remove contact lenses, if present, after first 5 minutes, then continue rinsing.

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.

Note to physician

Treatment:

Aspiration of this product during induced emesis can result in lung injury. If evacuation of stomach contents is considered necessary, use method least likely to cause aspiration, such as gastric lavage after endotracheal intubation.

5. Fire-Fighting Measures

Flash point: Non-flammable. Flame Projection: < 18"
Autoignition: Based on the water content the product does not ignite.

Self-ignition temperature: not self-igniting

Suitable extinguishing media:

foam, dry powder, carbon dioxide, water spray

Hazards during fire-fighting:

carbon monoxide, carbon dioxide, nitrogen oxides, toxic gases/vapours The substances/groups of substances mentioned can be released in case of fire.

Revision date: 2011/03/25 Page: 3/8 Version: 2.0 (30545983/SDS_CPA_US/EN)

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:

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.

Cleanup:

Dike spillage. Pick up with suitable absorbent material. 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

Handling

General advice:

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. 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. 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. Provide means for controlling leaks and spills. 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:

Aerosol container contains flammable gas under pressure. The relevant fire protection measures should be noted. Fire extinguishers should be kept handy. Avoid all sources of ignition: heat, sparks, open flame. Avoid extreme heat. Ground all transfer equipment properly to prevent electrostatic discharge. Electrostatic discharge may cause ignition.

Storage

General advice:

Protect containers from physical damage. Store in a cool, dry, well-ventilated area. Avoid all sources of ignition: heat, sparks, open flame. Store protected against freezing.

Storage incompatibility:

General advice: Segregate from foods and animal feeds.

Storage stability:

May be kept indefinitely if stored properly. If an expiry date is mentioned on the packaging/label this takes priority over the statements on storage duration in this safety data sheet.

Temperature tolerance

Protect from temperatures above: 130 °F Explosive at or above indicated temperature.

Revision date: 2011/03/25 Page: 4/8 Version: 2.0 (30545983/SDS_CPA_US/EN)

8. Exposure Controls and Personal Protection

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

Components with workplace control parameters

Distillates (petroleum),

hydrotreated light ACGIH TWA value 200 mg/m3 Non-aerosol (total

hydrocarbon vapor);

Application restricted to conditions in which there are

negligible aerosol exposures.

Skin Designation Non-aerosol (total hydrocarbon

vapor);

The substance can be absorbed through the skin.

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) organic vapour/particulate respirator. 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:

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. Keep away from food, drink and animal feeding stuffs. No eating, drinking, smoking or tobacco use at the place of work. Hands and/or face should be washed before breaks and at the end of the shift. Remove contaminated clothing immediately and dispose of safely.

9. Physical and Chemical Properties

Form: aerosol, liquid
Odour: solvent-like
Colour: whitish
pH value: 6.1

Vapour pressure: 80 psia ($20\,^{\circ}\text{C}$) Density: 0.9683 g/cm3 ($20\,^{\circ}\text{C}$)

Revision date: 2011/03/25 Page: 5/8 Version: 2.0 (30545983/SDS_CPA_US/EN)

10. Stability and Reactivity

Conditions to avoid:

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

Substances to avoid:

No substances known that should be avoided.

Hazardous reactions:

The product is chemically stable.

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:

Possible thermal decomposition products:

carbon monoxide, carbon dioxide, nitrogen dioxide, nitrogen oxide

Stable at ambient temperature. If product is heated above decomposition temperature toxic vapours may be released. To avoid thermal decomposition, do not overheat.

Corrosion to metals:

Corrosive effects to metal are not anticipated.

Oxidizing properties:

not fire-propagating

11. Toxicological information

Acute toxicity

Oral:

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

Inhalation:

Type of value: LC50 Species: rat (male/female) Value: > 2.08 mg/l Exposure time: 4 h No mortality was observed.

Dermal:

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

Irritation / corrosion

Skin:

Species: rabbit

Result: moderately irritating

Eye:

Species: rabbit

Result: Slightly irritating.

Revision date: 2011/03/25 Page: 6/8 Version: 2.0 (30545983/SDS_CPA_US/EN)

Sensitization:

Buehler test

Species: guinea pig

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

Repeated dose toxicity

Information on: Prallethrin

Assessment of repeated dose toxicity:

May affect the central nervous system as indicated in animal studies.

Genetic toxicity

Information on: Pyriproxyfen No mutagenic effects reported.

Information on: Prallethrin

Results from a number of mutagenicity studies with microorganisms, mammalian cell culture and mammals are available. Taking into account all of the information, there is no indication that the substance is mutagenic.

Carcinogenicity

Information on: Pyriproxyfen

In long-term studies in rats and mice in which the substance was given by feed, a carcinogenic effect was not

observed.

Information on: Dinotefuran

No data available concerning carcinogenic effects.

Information on: Prallethrin

Not carcinogenic.

Reproductive toxicity

Information on: Pyriproxyfen

No reproductive toxic effects reported.

Information on: Dinotefuran

No data available concerning reproduction toxicity.

Information on: Prallethrin

Animal studies gave no indication of a developmental toxic effect at doses that were not toxic to the parental

animals.

Development:

Information on: Pyriproxyfen

No indications of a developmental toxic / teratogenic effect were seen in animal studies.

Information on: Dinotefuran

No data available concerning teratogenic effects.

Information on: Prallethrin

No indications of a developmental toxic / teratogenic effect were seen in animal studies.

12. Ecological Information

Fish

Information on: Pyriproxyfen

Acute: Flow through.

Oncorhynchus mykiss/LC50 (96 h): > 0.325 mg/l

Revision date: 2011/03/25 Page: 7/8 Version: 2.0 (30545983/SDS_CPA_US/EN)

Information on: Prallethrin

Acute:

Oncorhynchus mykiss/LC50 (96 h): 0.012 mg/l

Information on: Dinotefuran

Acute:

Oncorhynchus mykiss/LC50 (96 h): = >100 ppm

Aquatic invertebrates

Information on: Pyriproxyfen

Acute: Flow through.

Daphnia magna/LC50 (48 h): 0.4 mg/l

Information on: Prallethrin

Acute:

daphnia/EC50 (48 h): 0.0062 mg/l

Information on: Dinotefuran

Acute:

Daphnia magna/EC50 (48 h): >1000 ppm

Aquatic plants

Information on: Pyriproxyfen Toxicity to aquatic plants:

OECD Guideline 201 green algae/EC50: 0.064 mg/l

Information on: Dinotefuran Toxicity to aquatic plants:

green algae/EC50 (72 h): > 100 mg/l swollen duckweed/EC50: >110 ppm

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 quidance.

Container disposal:

Do not cut, puncture, crush, or incinerate empty aerosol containers. Consult state or local disposal authorities for approved alternative procedures such as container recycling. Empty aerosol cans may meet the definition of RCRA D003. Consult local and/or regional EPA for further guidance.

14. Transport Information

Reference Bill of Lading

15. Regulatory Information

Revision date: 2011/03/25 Page: 8/8 Version: 2.0 (30545983/SDS_CPA_US/EN)

Federal Regulations

Registration status:

Chemical TSCA, US blocked / not listed

Crop Protection TSCA, US released / exempt

OSHA hazard category: Chronic target organ effects reported; ACGIH TLV established

EPCRA 311/312 (Hazard categories): Acute; Chronic

State regulations

State RTK CAS Number Chemical name

MA, NJ, PA 64742-47-8 Distillates (petroleum), hydrotreated light

16. Other Information

Refer to product label for EPA registration number.

Recommended use: insecticide

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.

MSDS Prepared by:

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MSDS Prepared on: 2011/03/25

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