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1. Product and Company Identification

Company
BASF CORPORATION
100 Park Avenue
Florham Park, NJ 07932, USA

24 Hour Emergency Response Information CHEMTREC: 1-800-424-9300 BASF HOTLINE: 1-800-832-HELP (4357)

Registrant:

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

Substance number: 000000552911 Synonyms: Dinotefuran

2. Hazards Identification

Emergency overview

CAUTION:

KEEP OUT OF REACH OF CHILDREN.
KEEP OUT OF REACH OF DOMESTIC ANIMALS.
Causes eye irritation.
Avoid contact with the skin, eyes and clothing.
Wash thoroughly after handling.

See Product Label for additional precautionary statements.

State of matter: solid Colour: white Odour: odourless

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

Irritation / corrosion:

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

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Sensitization:

There is no evidence of a skin-sensitizing potential.

Chronic toxicity:

Repeated dose toxicity: The product has not been tested. The statement has been derived from the properties of the individual components. No substance-specific organioxicity was observed after repeated administration to animals.

Medical conditions aggravated by overexposure:

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

Potential environmental effects

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. There is a high probability that the product is not acutely harmful to aquatic plants.

3. Composition / Information on Ingredients

CAS Number
165252-70-0Content (W/W)
40.0 %Chemical name
Dinotefuran60.0 %Proprietary ingredients

4. 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 plenty of water.

Note to physician

Treatment: Symptomatic treatment (decontamination, vital functions).

5. Fire-Fighting Measures

Flash point: 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.

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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.

Flammability: not highly flammable

Self-ignition temperature: not determined

Suitable extinguishing media:

water spray, dry powder, foam

Unsuitable extinguishing media for safety reasons:

water jet, carbon dioxide

Hazards during fire-fighting:

carbon monoxide, carbon dioxide, nitrogen oxides, acid halides

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

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:

Use personal protective clothing. Avoid contact with the skin, eyes and clothing. Avoid dust formation.

Environmental precautions:

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

Cleanup:

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. Avoid raising dust.

For small amounts: Contain with dust binding material and dispose of.

For large amounts: Sweep/shovel up.

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 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 dust formation. 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:

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.

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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.

Avoid dust formation. Dust can form an explosive mixture with air. Prevent electrostatic charge - sources of ignition should be kept well clear - fire extinguishers should be kept handy.

Storage

General advice:

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.

Storage incompatibility:

General advice: Segregate from foods and animal feeds.

Temperature tolerance

Protect from temperatures below: -20 °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: 60 °C

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

8. Exposure Controls and 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:

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).

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). Take off

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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.

9. Physical and Chemical Properties

Form: free flowing fine granules

Odour: odourless
Colour: white

pH value: approx. 6 - 8 (approx. 23 °C)
Melting temperature: not determined
Boiling point: not determined

Vapour pressure: not applicable

1.33

Density: approx. 1.4 g/cm3 (20 °C) The statements are based on the properties of the individual components.

(20 °C) The product has not been tested.

The statement has been derived from

substances/products of a similar structure or

composition.

Bulk density: approx. 0.405 -

0.495 kg/l 4.2645 Lb/USg

Vapour density: not determined Viscosity, dynamic: not applicable Solubility in water: not applicable

10. Stability and Reactivity

Dust explosivity characteristics:

Kst: 74 m.bar/s

Relative density:

Minimum ignition energy:

> 100 mJ, 7.1 bar

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. Avoid prolonged storage. This product may form an explosive mixture if: 1. the dust is suspended in the atmosphere as a dust cloud AND 2. the concentration of the dust is above the lower explosion limit (LEL) AND 3. the limiting oxygen concentration (LOC) is exceeded.

Substances to avoid:

strong oxidizing agents, strong acids, strong bases

Hazardous reactions:

The product is chemically stable.

Hazardous polymerization will not occur. No hazardous reactions if stored and handled as prescribed/indicated.

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

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

Oxidizing properties:

not fire-propagating

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11. Toxicological information

Acute toxicity

Oral:

Type of value: LD50 Species: rat (female) Value: > 5,000 mg/kg

Inhalation:

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

Dermal:

Type of value: LD50 Species: rat (male/female) Value: > 5,000 mg/kg

Irritation / corrosion:

Skin:

Information on: Dinotefuran Species: rabbit Result: Slightly irritating.

Eye:

Information on: Dinotefuran

Species: rabbit

Result: Slightly irritating.

Sensitization:

Buehler test

Species: guinea pig

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

Genetic toxicity

Information on: Dinotefuran

Mutagenicity tests revealed no genotoxic potential.

Carcinogenicity

Information on: Dinotefuran

No data available concerning carcinogenic effects.

Reproductive toxicity

Information on: Dinotefuran No data available.

Development:

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Information on: Dinotefuran No data available.

Other Information:

Misuse can be harmful to health.

12. Ecological Information

Fish

Information on: Dinotefuran

Acute:

Oncorhynchus mykiss/LC50 (96 h): > 100 mg/l Cyprinus carpio/LC50 (96 h): > 100 mg/l

Aquatic invertebrates

Information on: Dinotefuran

Acute:

Daphnia magna/EC50 (48 h): > 1,000 mg/l

shrimp/LC50 (96 h): 0.79 mg/l

Aquatic plants

Information on: Dinotefuran Toxicity to aquatic plants:

green algae/EC50 (72 h): > 100 mg/l

Non-Mammals

Other terrestrial non-mammals: Honey bee/LD50: 0,022 µg/bee

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

Environmental mobility:

Information on: Dinotefuran

Assessment transport between environmental compartments:

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

Other adverse effects:

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.

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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:

The waste codes are manufacturer's recommendations based on the designated use of the product. Other use and special waste disposal treatment on customer's location may require different waste-code assignents. 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

Hazard class: 9
Packing group: III
ID number: UN 3077
Hazard label: 9, EHSM

Marine pollutant: YES

Proper shipping name: ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S.

(contains DINOTEFURAN)

Air transport

IATA/ICAO

Hazard class: 9
Packing group: III
ID number: UN:

ID number: UN 3077 Hazard label: 9, EHSM

Proper shipping name: ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S.

(contains DINOTEFURAN)

15. Regulatory Information

Federal Regulations

Registration status:

Crop Protection TSCA, US released / exempt

OSHA hazard category: No data available.;

EPCRA 311/312 (Hazard categories): Not hazardous;

State regulations

CA Prop. 65:

CA PROP 65: An assessment has determined that there is no significant risk present.

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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.

SDS Prepared by:

BASF NA Product Regulations msds@basf.com SDS Prepared on: 2013/05/21

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