1. Identification

Product identifier used on the label

Alpine D Dust Insecticide

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 Canada Inc.
100 Milverton Drive
Mississauga, ON L5R 4H1, CANADA

Contact address:
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: 395727
EPA Registration number: 499-527
Synonyms: Dinotefuran

2. Hazards Identification


Label elements

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

Hazards not otherwise classified

Labeling of special preparations (GHS):
The following percentage of the mixture consists of components(s) with unknown hazards regarding the acute toxicity: 7 % dermal
The following percentage of the mixture consists of components(s) with unknown hazards regarding the acute toxicity: 2 % Inhalation - dust
This product is not combustible in the form in which it is shipped by the manufacturer, but may form a combustible dust through downstream activities (e.g. grinding, pulverizing) that reduce its particle size.

3. Composition / Information on Ingredients


<table>
<thead>
<tr>
<th>CAS Number</th>
<th>Weight %</th>
<th>Chemical name</th>
</tr>
</thead>
<tbody>
<tr>
<td>165252-70-0</td>
<td>0.25 %</td>
<td>Dinotefuran technical</td>
</tr>
<tr>
<td>1309-37-1</td>
<td>1.0 - 3.0%</td>
<td>Iron oxide</td>
</tr>
<tr>
<td>1344-28-1</td>
<td>3.0 - 7.0%</td>
<td>Aluminum oxide</td>
</tr>
<tr>
<td>61790-53-2</td>
<td>&lt; 99.0%</td>
<td>Diatomaceous Earth</td>
</tr>
</tbody>
</table>

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 plenty of water.

Most important symptoms and effects, both acute and delayed

Symptoms: No significant reaction of the human body to the product known.

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

Suitable extinguishing media:
foam, dry powder, carbon dioxide, water spray
Special hazards arising from the substance or mixture
Hazardous during fire-fighting:
carbon monoxide, carbon dioxide, nitrogen dioxide, nitrogen oxide,
If product is heated above decomposition temperature, toxic vapours will be released. 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. Dusty conditions may ignite explosively in the presence of an ignition source causing flash fire.

6. Accidental release measures

Further accidental release measures:
Avoid dispersal of dust in the air (i.e., clearing dust surfaces with compressed air). Avoid the formation and build-up of dust - danger of dust explosion. Dust in sufficient concentration can result in an explosive mixture in air. Handle to minimize dusting and eliminate open flame and other sources of ignition.

Personal precautions, protective equipment and emergency procedures
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. A spill of or in excess of the reportable quantity requires notification to state, local and national emergency authorities. This product is not regulated by CERCLA ("Superfund").

Methods and material for containment and cleaning up
Dike spillage. Sweep/shovel up. Avoid raising dust. Use wet cleaning methods when applicable. 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. 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

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. 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:
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. Avoid dust formation. Dust in sufficient concentration can result in an explosive mixture in air. Handle to minimize dusting and eliminate open flame and other sources of ignition. Routine housekeeping should be instituted to ensure that dusts do not accumulate on surfaces. Dry powders can build static electricity charges when subjected to the friction of transfer and mixing operations. Provide adequate precautions, such as electrical grounding and bonding, or inert atmospheres. Refer to NFPA 654, Standard for the Prevention of Fire and Dust Explosions from the Manufacturing, Processing, and Handling of Combustible Particulate Solids (2013 Edition) for safe handling.

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.

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.

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

Iron oxide
- OSHA PEL: PEL 10 mg/m³ fumes/smoke; TWA value 10 mg/m³ fumes/smoke
- ACGIH TLV: TWA value 5 mg/m³ Respirable fraction

Aluminum oxide
- OSHA PEL: PEL 5 mg/m³ Respirable fraction; PEL 15 mg/m³ Total dust; TWA value 5 mg/m³ Respirable fraction; TWA value 10 mg/m³ Total dust
- ACGIH TLV: TWA value 1 mg/m³ Respirable fraction

Diatomaceous Earth
- OSHA PEL: TWA value 6 mg/m³; TWA value 0.8 mg/m³
  The exposure limit is calculated from the equation, 80mg/m³/(%SiO2), using a value of 100% SiO2. Lower percentages of SiO2 will yield higher exposure limits. TWA value 20 millions of particles per cubic foot of air

Advice on system design:
Whenever possible, engineering controls should be used to minimize the need for personal protective equipment. It is recommended that all dust control equipment such as local exhaust
ventilation and material transport systems involved in handling of this product contain explosion relief vents or an explosion suppression system or an oxygen deficient environment. Ensure that dust-handling systems (such as exhaust ducts, dust collectors, vessels, and processing equipment) are designed in a manner to prevent the escape of dust into the work area (i.e., there is no leakage from the equipment). Use only appropriately classified electrical equipment and powered industrial trucks.

**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.

### 9. Physical and Chemical Properties

<table>
<thead>
<tr>
<th>Property</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Form</td>
<td>powder</td>
</tr>
<tr>
<td>Odour:</td>
<td>earthy</td>
</tr>
<tr>
<td>Odour threshold:</td>
<td>Not determined due to potential health hazard by inhalation.</td>
</tr>
<tr>
<td>Colour:</td>
<td>white</td>
</tr>
<tr>
<td>pH value:</td>
<td>approx. 7 - 8 (1 % (m), 22.5 °C)</td>
</tr>
<tr>
<td>Melting point:</td>
<td>760 °C</td>
</tr>
<tr>
<td>Boiling point:</td>
<td>not applicable</td>
</tr>
<tr>
<td>Flash point:</td>
<td>not applicable</td>
</tr>
<tr>
<td>Flammability:</td>
<td>Based on the structure or composition there is no indication of flammability</td>
</tr>
<tr>
<td>Lower explosion limit:</td>
<td>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.</td>
</tr>
</tbody>
</table>
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 density: not applicable
Self-ignition temperature: Based on its structural properties the product is not classified as self-igniting.
Thermal decomposition: 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.
Solubility in water: dispersible
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
The product is stable if stored and handled as prescribed/indicated.

Possibility of hazardous reactions
The product is chemically stable.

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

Incompatible materials
organic acids

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:
Possible thermal decomposition products:
carbon monoxide, carbon dioxide, nitrogen dioxide, nitrogen oxide
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**

**Oral**
Type of value: LD50
Species: rat
Value: > 5,000 mg/kg

**Inhalation**
Type of value: LC50
Species: rat
Value: > 2.08 mg/l
Exposure time: 4 h
No mortality was observed.

**Dermal**
Type of value: LD50
Species: rat
Value: > 5,000 mg/kg

**Irritation / corrosion**
Assessment of irritating effects: May cause moderate but temporary irritation to the eyes. May cause slight irritation to the skin.

**Skin**
Species: rabbit
Result: non-irritant

**Eye**
Species: rabbit
Result: non-irritant

**Sensitization**
Assessment of sensitization: Skin sensitizing effects were not observed in animal studies.

modified Buehler test
Species: guinea pig
Result: Non-sensitizing.

**Chronic Toxicity/Effects**

Repetid 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: Kieselgur
Assessment of repeated dose toxicity: Based on available Data, the classification criteria are not met.

Information on: Aluminum oxide
Assessment of repeated dose toxicity: Repeated inhalative uptake of the substance did not cause substance-related effects.

Information on: Iron oxide
Assessment of repeated dose toxicity: Short-term inhalation (5 days) of low aerosol concentrations did not cause substance-specific effects in animal studies. The substance may cause increase in lung mass and lung tissue changes after repeated inhalation. Chronic exposures have been known to produce pneumoconiosis (chronic inflammatory and fibrotic lung disease).

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
No significant reaction of the human body to the product known.

12. Ecological Information

Toxicity

Aquatic toxicity
Assessment of 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.

Toxicity to fish
**Information on: Dinotefuran technical**

**LC50 (96 h) > 100 mg/l, Oncorhynchus mykiss**

**LC50 (96 h) > 100 mg/l, Cyprinus carpio**

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**Aquatic invertebrates**

**Information on: Dinotefuran technical**

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

**EC50 (96 h) 0.79 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.

**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: Dinotefuran technical**

Because of the n-octanol/water distribution coefficient (log Pow) 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: Dinotefuran technical**

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

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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:**

Pesticide wastes are regulated. 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
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 released / exempt
Pesticide

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

State regulations

<table>
<thead>
<tr>
<th>State RTK</th>
<th>CAS Number</th>
<th>Chemical name</th>
</tr>
</thead>
<tbody>
<tr>
<td>PA</td>
<td>1309-37-1</td>
<td>Iron oxide</td>
</tr>
<tr>
<td></td>
<td>1344-28-1</td>
<td>Aluminum oxide</td>
</tr>
<tr>
<td></td>
<td>61790-53-2</td>
<td>Diatomaceous Earth</td>
</tr>
<tr>
<td>MA</td>
<td>1309-37-1</td>
<td>Iron oxide</td>
</tr>
<tr>
<td></td>
<td>1344-28-1</td>
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</tr>
<tr>
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<td>Diatomaceous Earth</td>
</tr>
<tr>
<td>NJ</td>
<td>1309-37-1</td>
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</table>

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.

**NFPA Hazard codes:**
Health: 1  Fire: 0  Reactivity: 1  Special:

**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.
KEEP OUT OF REACH OF DOMESTIC ANIMALS.
May cause moderate but temporary irritation to the eyes.
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: 2018/05/02

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.

END OF DATA SHEET