1. Identification

Product identifier used on the label

Zampro Fungicide

Recommended use of the chemical and restriction on use

Recommended use*: crop protection product, fungicide

* 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

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

Other means of identification

Substance number: 240622
Registration number: EPA Registration number: 7969-302
Synonyms: ametoctradin + dimethomorph

2. Hazards Identification


Classification of the product

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>4 (oral)</td>
<td>2 (fertility)</td>
<td>2 (unborn child)</td>
</tr>
</tbody>
</table>

Acute toxicity
Reproductive toxicity
Aquatic Acute  3  Hazardous to the aquatic environment - acute
Aquatic Chronic  1  Hazardous to the aquatic environment - chronic

Label elements

Pictogram:

Signal Word:
Warning

Hazard Statement:
H302  Harmful if swallowed.
H361  Suspected of damaging fertility. Suspected of damaging the unborn child.
H402  Harmful to aquatic life.
H410  Very toxic to aquatic life with long lasting effects.

Precautionary Statements (Prevention):
P273  Avoid release to the environment.
P280  Wear protective gloves, protective clothing and eye protection or face protection.
P201  Obtain special instructions before use.
P202  Do not handle until all safety precautions have been read and understood.
P270  Do not eat, drink or smoke when using this product.
P264  Wash contaminated body parts thoroughly after handling.

Precautionary Statements (Response):
P301 + P312  IF SWALLOWED: Call a POISON CENTER or doctor/physician if you feel unwell.
P330  Rinse mouth
P391  Collect spillage.
P308 + P313  IF exposed or concerned: Get medical attention.

Precautionary Statements (Storage):
P405  Store locked up.

Precautionary Statements (Disposal):
P501  Dispose of contents/container in accordance with local regulations.

3. Composition / Information on Ingredients


ametoctradin
CAS Number: 865318-97-4
Content (W/W): 26.9%
Synonym: ametoctradin

Dimethomorph techn.
CAS Number: 110488-70-5
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. In case of intoxication, call a poison control center or physician for treatment advice, taking the packaging or the label of the product.

**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 eyes:**
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.

**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.

5. Fire-Fighting Measures

**Extinguishing media**

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

Unsuitable extinguishing media for safety reasons:
water jet
Special hazards arising from the substance or mixture
Hazards during fire-fighting:
carbon monoxide, carbon dioxide, nitrogen dioxide, nitrogen oxide, Hydrogen chloride, halogenated hydrocarbons,
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:
Wear self-contained breathing apparatus and chemical-protective clothing.

Further information:
In case of fire and/or explosion do not breathe fumes. Keep containers cool by spraying with water if exposed to fire. 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. 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 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 aerosol formation. Avoid dust 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 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. 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.

**Conditions for safe storage, including any incompatibilities**

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. Protect from temperatures above: 40 °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/Personal Protection

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

**Components with occupational exposure limits**

- **dimethomorph**: TWA value 0.67 mg/m3
- **ametoctradin**: TWA value 28.21 mg/m3

**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. Wear face shield or tightly fitting safety goggles (chemical goggles) 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). 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.

9. Physical and Chemical Properties

<table>
<thead>
<tr>
<th>Property</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Form</td>
<td>liquid</td>
</tr>
<tr>
<td>Odour</td>
<td>faintly aromatic</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. 6 - 8 (1 %%(m), 20 °C)</td>
</tr>
<tr>
<td>Freezing point</td>
<td>-6.2 °C</td>
</tr>
<tr>
<td>Boiling point</td>
<td>approx. 100 °C (1,013 hPa)</td>
</tr>
<tr>
<td>Flash point</td>
<td>No flash point - Measurement made up to the boiling point. (Directive 92/69/EEC, A.9)</td>
</tr>
<tr>
<td>Flammability</td>
<td>not applicable</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>
<tr>
<td>Upper 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>
<tr>
<td>Autoignition</td>
<td>approx. 463 °C (Directive 92/69/EEC, A.15)</td>
</tr>
<tr>
<td>Density</td>
<td>approx. 1.11 g/cm³ (approx. 20 °C) (OECD Guideline 109)</td>
</tr>
<tr>
<td>Vapour density</td>
<td>not applicable</td>
</tr>
<tr>
<td>Partitioning coefficient n-octanol/water (log Pow)</td>
<td>The statements are based on the properties of the individual components.</td>
</tr>
<tr>
<td>Thermal decomposition</td>
<td>220 °C, 20 kJ/kg (DSC (OECD 113)) 285 °C, 340 kJ/kg (DSC (OECD 113)) Not a substance liable to self-decomposition according to UN transport regulations, class 4.1.</td>
</tr>
<tr>
<td>Viscosity, dynamic</td>
<td>approx. 81 mPa.s (20 °C) (OECD 114)</td>
</tr>
<tr>
<td>Solubility in water</td>
<td>dispersible</td>
</tr>
</tbody>
</table>
10. Stability and Reactivity

Reactivity
No hazardous reactions if stored and handled as prescribed/indicated.

Chemical stability
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

Incompatible materials
strong oxidizing agents

Hazardous decomposition products

Decomposition products: No hazardous decomposition products if stored and handled as prescribed/indicated.

Thermal decomposition:
220 °C, 2.5 K/min (DSC (OECD 113))
285 °C, 2.5 K/min (DSC (OECD 113))

Not a substance liable to self-decomposition according to UN transport regulations, class 4.1.

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 (female)  
Value: > 500 - < 2,000 mg/kg (OECD Guideline 423)

**Inhalation**
Type of value: LC50  
Species: rat (male/female)  
Value: > 5.1 mg/l (OECD Guideline 403)  
Exposure time: 4 h  
An aerosol was tested.  
No mortality was observed.

**Dermal**
Type of value: LD50  
Species: rat (male/female)  
Value: > 5,000 mg/kg (OECD Guideline 402)

**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: May cause slight irritation to the skin. May cause slight but temporary irritation to the eyes.

**Skin**
Species: rabbit  
Result: non-irritant  
Method: OECD Guideline 404

**Eye**
Species: rabbit  
Result: non-irritant  
Method: OECD Guideline 405

**Sensitization**
Assessment of sensitization: There is no evidence of a skin-sensitizing potential.

**Aspiration Hazard**
No aspiration hazard expected. The product has not been tested. The statement has been derived from the properties of the individual components.

**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: Dimethomorph techn.*  
**Assessment of repeated dose toxicity:** The substance may cause damage to the prostate after repeated ingestion. Based on available data, the classification criteria are not met.
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.

Information on: Dimethomorph techn.
Assessment of reproduction toxicity: The results of animal studies suggest 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.

Information on: Dimethomorph techn.
Assessment of teratogenicity: Indications of possible developmental toxicity/teratogenicity were seen in animal studies.

Other Information
Misuse can be harmful to health.

12. Ecological Information

Toxicity

Aquatic toxicity
Assessment of aquatic toxicity:
Acutely harmful for fish. There is a high probability that the product is not acutely harmful to aquatic invertebrates. Acutely harmful for aquatic plants.

Toxicity to fish
LC50 (96 h) 23.2 mg/l, Oncorhynchus mykiss (OECD 203; ISO 7346; 92/69/EEC, C.1, static)

Aquatic invertebrates
EC50 (48 h) > 100 mg/l, Daphnia magna (OECD Guideline 202, part 1)

Aquatic plants
EC50 (72 h) 74.2 mg/l (growth rate), Pseudokirchneriella subcapitata (OECD Guideline 201)

Chronic toxicity to fish

Information on: Dimethomorph techn.
EC10 (60 d) 0.116 mg/l, Oncorhynchus mykiss
No observed effect concentration (34 d) 0.107 mg/l, Pimephales promelas
Chronic toxicity to aquatic invertebrates

*Information on: ametoctradin*

No observed effect concentration (21 d) 0.052 mg/l, *Daphnia magna* (OECD Guideline 211, semistatic)

*Information on: Dimethomorph techn.*

No observed effect concentration (21 d) 0.22 mg/l, *Daphnia magna*

EC10 (21 d) 0.421 mg/l, *Daphnia magna*

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Bioaccumulative potential

Assessment bioaccumulation potential

*Information on: Dimethomorph techn.*

Because of the n-octanol/water distribution coefficient (log Pow) accumulation in organisms is not to be expected.

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Bioaccumulation potential

*Information on: ametoctradin*

*Bioconcentration factor:* 197 - 202, *Lepomis macrochirus*

*Accumulation in organisms is not to be expected.*

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Mobility in soil

Assessment transport between environmental compartments

*Information on: ametoctradin*

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

*Information on: Dimethomorph techn.*

The substance will not evaporate into the atmosphere from the water surface. 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:

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:**
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 assignments. 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 3082
Hazard label: 9, EHSM
Marine pollutant: YES
Proper shipping name: ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (contains AMETOCTRADIN, DIMETHOMORPH)

**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 AMETOCTRADIN, DIMETHOMORPH)

**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) and also the Special Provision 375 in Appendix B which is regulated in China “Regulations Concerning Road Transportation of Dangerous Goods Part 3: Index of dangerous goods name and transportation requirements” (JT/T 617.3)

15. Regulatory Information

**Federal Regulations**

**Registration status:**
Crop Protection TSCA, US released / exempt
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>57-55-6</td>
<td>Propylene glycol</td>
</tr>
<tr>
<td>NJ</td>
<td>57-55-6</td>
<td>Propylene glycol</td>
</tr>
<tr>
<td></td>
<td>100-41-4</td>
<td>ethylbenzene</td>
</tr>
</tbody>
</table>

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

WARNING: This product can expose you to chemicals including ETHYLBENZENE, which is known to the State of California to cause cancer. For more information, go to www.P65Warnings.ca.gov.

NFPA Hazard codes:

Health: 1          Fire: 1          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.
HARMFUL IF SWALLOWED.
HARMFUL IF ABSORBED THROUGH SKIN.
Avoid contact with the skin, eyes and clothing.
Wash thoroughly with soap and water after handling and before eating, drinking, chewing gum, using tobacco or using the toilet.
Remove contaminated clothing and wash before reuse.

16. Other Information

SDS Prepared by:
BASF NA Product Regulations
SDS Prepared on: 2022/12/19
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