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## 1. Identification

# Product identifier used on the label

# STATURE DM

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

Recommended use\*: fungicide

# 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: 61965 EPA Register number: 241-419

Molecular formula: C21 H22 CI NO4
Chemical family: morpholine derivative
Synonyms: dimethomorph

## 2. Hazards Identification

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

# Classification of the product

STOT RE	2	Specific target organ toxicity — repeated	
		exposure	
Aquatic Acute	3	Hazardous to the aquatic environment - acute	
Aquatic Chronic	3	Hazardous to the aquatic environment - chronic	

<sup>\*</sup> The "Recommended use" identified for this product is provided solely to comply with a US 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.

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### Label elements

### Pictogram:



Signal Word: Warning

Hazard Statement:

H373 May cause damage to organs through prolonged or repeated exposure.

H402 Harmful to aquatic life.

H412 Harmful to aquatic life with long lasting effects.

Precautionary Statements (Prevention):

P273 Avoid release to the environment.
P260 Do not breathe dust/gas/mist/vapours.

Precautionary Statements (Response):

P311 Call a POISON CENTER or doctor/physician.

Precautionary Statements (Disposal):

P501 Dispose of contents/container to hazardous or special waste collection

point.

## 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 - 12 % dermal

The following percentage of the mixture consists of components(s) with unknown hazards regarding the acute toxicity: 7 - 11 % oral

The following percentage of the mixture consists of components(s) with unknown hazards regarding the acute toxicity: 9 - 13 % Inhalation - dust

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

# **Emergency overview**

CAUTION:

KEEP OUT OF REACH OF CHILDREN.

HARMFUL IF SWALLOWED.

HARMFUL IF ABSORBED THROUGH SKIN. Avoid contact with the skin, eyes and clothing.

Wash thoroughly after handling.

# 3. Composition / Information on Ingredients

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

<u>W) Chemical name</u>
dimethomorph
crystalline silica
Titanium dioxide
Naphthalenesulfonic acid, bis(1-methylethyl)-, sodium salt

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

CAS Number	Content (W/W)	Chemical name
110488-70-5	50.0 %	dimethomorph
	50.0 %	Proprietary ingredients
14808-60-7	>= 0.1 %	crystalline silica
13463-67-7	>= 0.1 %	Titanium dioxide

# 4. First-Aid Measures

# **Description of first aid measures**

#### General advice:

Remove contaminated clothing.

#### If inhaled:

Keep patient calm, remove to fresh air, seek medical attention.

#### 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:

Immediately rinse mouth and then drink 200-300 ml of water, seek medical attention.

## 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

Note to physician

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

Treatment: Treat according to symptoms (decontamination, vital functions), no

known specific antidote.

# 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, nitrogen oxides, acid halides

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If product is heated above decomposition temperature, toxic vapours will be released. The substances/groups of substances mentioned can be released if the product is involved in a 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.

## 6. Accidental release measures

# 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.

# 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.

Dust explosion class: Dust explosion class 2 (Kst-value 200 up to 300 bar m s-1).

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## 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.

# 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

Kaolin OSHA PEL PEL 5 mg/m3 Respirable fraction; PEL 15

mg/m3 Total dust; TWA value 10 mg/m3 Total dust; TWA value 5 mg/m3 Respirable fraction

;

ACGIH TLV TWA value 2 mg/m3 Respirable fraction;

The value is for particulate matter containing no

asbestos and <1% crystalline silica.

Titanium dioxide OSHA PEL PEL 15 mg/m3 Total dust ; TWA value 10

mg/m3 Total dust;

ACGIH TLV TWA value 10 mg/m3;

crystalline silica OSHA PEL TWA value 2.4 millions of particles per cubic foot

of air Respirable;

The exposure limit is calculated from the

equation, 250/(%SiO2+5), using a value of 100% SiO2. Lower percentages of SiO2 will yield higher

exposure limits.

TWA value 0.1 mg/m3 Respirable; The exposure limit is calculated from the

equation, 10/(%SiO2+2), using a value of 100% SiO2. Lower percentages of SiO2 will yield higher

exposure limits.

TWA value 0.3 mg/m3 Total dust; The exposure limit is calculated from the equation, 30/(%SiO2+2), using a value of 100% SiO2. Lower percentages of SiO2 will yield higher

exposure limits.

ACGIH TLV TWA value 0.025 mg/m3 Respirable fraction ;

## 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:

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### Respiratory protection:

Wear respiratory protection if ventilation is inadequate. Wear a NIOSH-certified (or equivalent) TC23C Chemical/Mechanical type filter system to remove a combination of particles, gas and vapours. 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:

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

Lower explosion limit:

Form: powder Odour: mild, musty

Odour threshold: Not determined due to potential health

hazard by inhalation.

Colour: white pH value: approx. 4 - 6 (10 g/l, 20 °C)

Melting point: approx. 125 - The values mentioned are those of the

149 °C active ingredient.

Flash point: not applicable
Flammability: Based on the (Directive 92/69/EEC, A.10)

structure or composition there is no

indication of flammability

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.

Autoignition: not applicable Vapour pressure: negligible

Density: approx. 1.72 (20 °C) (OECD Guideline 109)

g/cm3

Vapour density: not applicable

Self-ignition 386 °C (Regulation 440/2008/EC, A.16)

temperature:

Thermal decomposition: 340 °C, 850 kJ/kg (DSC (OECD 113))

Not a substance liable to self-decomposition according to UN

transport regulations, class 4.1. 280 °C (VDI 2263, sheet 1, 1.4.1)

carbon monoxide, carbon dioxide, nitrogen oxide, nitrogen dioxide, Hydrogen chloride, Hydrocarbons, halogenated

hydrocarbons

Stable at ambient temperature. If product is heated above decomposition temperature toxic vapours may be released. not applicable, the product is a solid

Viscosity, dynamic: Particle size: D90 < 12 μm

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.

Oxidizing properties:

not fire-propagating (Regulation 440/2008/EC, A.17)

Dust explosion class:

Dust explosion class 2 (Kst-value 200 up to 300 bar m s-1) (St 2)

Minimum ignition energy:

1 - 3 mJ

## Chemical stability

The product is stable if stored and handled as prescribed/indicated.

# Possibility of hazardous reactions

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

### 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

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strong acids, strong bases, strong oxidizing agents

## Hazardous decomposition products

Decomposition products:

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

Thermal decomposition:

340 °C (DSC (OECD 113))

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

280 °C (VDI 2263, sheet 1, 1.4.1)

Possible thermal decomposition products:

carbon monoxide, carbon dioxide, nitrogen oxide, nitrogen dioxide, Hydrogen chloride,

Hydrocarbons, halogenated hydrocarbons

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

# 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: Slightly toxic after single ingestion. Slightly toxic after short-term skin contact. Relatively nontoxic after short-term inhalation.

<u>Oral</u>

Type of value: LD50 Species: rat (male/female)

Value: 2,939 mg/kg (OECD Guideline 401)

Inhalation

Type of value: LC50 Species: rat (male/female)

Value: > 2.0 mg/l (OECD Guideline 403)

Exposure time: 4 h
Tested as dust aerosol.

No mortality was observed. Highest concentration available for testing.

Dermal

Type of value: LD50 Species: rat (male/female)

Value: > 2,000 mg/kg (OECD Guideline 402)

## Irritation / corrosion

Assessment of irritating effects: May cause slight irritation to the skin. May cause slight but temporary irritation to the eyes.

<u>Eye</u>

Species: rabbit Result: non-irritant

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Method: OECD Guideline 405

#### Sensitization

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

# **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. No substance-specific organioxicity was observed after repeated administration to animals.

### 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.

# **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.

## Medical conditions aggravated by overexposure

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

# 12. Ecological Information

# **Toxicity**

Aquatic toxicity

Assessment of aquatic toxicity:

Acutely toxic for aquatic organisms.

## Toxicity to fish

LC50 (96 h) 15.3 mg/l, Oncorhynchus mykiss (OECD Guideline 203, static)

#### Aquatic invertebrates

EC50 (48 h) 14.2 mg/l, Daphnia magna (OECD Guideline 202, part 1, static)

## Aquatic plants

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EC50 (72 h) 60.2 mg/l (growth rate), Desmodesmus subspicatus (OECD Guideline 201, static)

#### Aquatic plants

Information on: dimethomorph

EC50 (96 h) > 20 mg/l, Pseudokirchneriella subcapitata

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### Assessment of terrestrial toxicity

With high probability not acutely harmful to terrestrial organisms.

## Other terrestrial non-mammals

Information on: dimethomorph LC50, Anas platyrhynchos

With high probability not acutely harmful to terrestrial organisms.

LD50 > 100 ug/bee, Apis mellifera

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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: Dimethomorph

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:

The ecological data given are those of the active ingredient. Do not release untreated into natural waters.

## 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:

This product is not regulated by RCRA.

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# 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 blocked / not listed

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

#### State regulations

State RTK	<b>CAS Number</b>	<b>Chemical name</b>
MA, NJ, PA	14808-60-7	crystalline silica
MA. NJ. PA	13463-67-7	Titanium dioxide

CA Prop. 65:

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

**HMIS III rating** 

Health: 3<sup>m</sup> Flammability: 1 Physical hazard:0

# 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.

HARMFUL IF SWALLOWED.

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HARMFUL IF ABSORBED THROUGH SKIN. 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: 2014/11/09

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.

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**