

# SAFETY DATA SHEET

according to the OSHA Hazard Communication Standard



## VIBRANCE MAXX

|         |                |              |                                 |
|---------|----------------|--------------|---------------------------------|
| Version | Revision Date: | SDS Number:  | Date of last issue: 01/29/2016  |
| 1.2     | 07/21/2026     | S00031137261 | Date of first issue: 01/29/2016 |

### SECTION 1. IDENTIFICATION

Product name : VIBRANCE MAXX  
Design code : A20927A

Product Registration number : 100-1561

#### Manufacturer or supplier's details

Company name of supplier : Syngenta Crop Protection, LLC  
Address : Post Office Box 18300  
Greensboro NC 27419  
United States of America (USA)

Telephone : 1 800 334 9481  
Telefax : 1 336 632 2192

E-mail address : sds.requests@syngenta.com  
Emergency telephone : 1 800 888 8372

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

Recommended use : Fungicide

Restrictions on use : General Use Pesticide

### SECTION 2. HAZARDS IDENTIFICATION

**GHS classification in accordance with the OSHA Hazard Communication Standard (29 CFR 1910.1200)**

#### Hazards for the product as supplied

Not a hazardous substance or mixture.

#### Other hazards

None known.

#### GHS label elements

No hazard pictogram, no signal word, no hazard statement(s), no precautionary statement(s) required.

### SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS

Substance / Mixture : Mixture

#### Components

| Chemical name          | CAS No./Unique ID | Concentration (% w/w) | Trade secret |
|------------------------|-------------------|-----------------------|--------------|
| propane-1,2-diol       | 57-55-6*          | >= 10 - <= 30         | TSC          |
| tetrabenzo-5,10,15,20- | 147-14-8*         | >= 5 - <= 10          | TSC          |

# SAFETY DATA SHEET

according to the OSHA Hazard Communication Standard



## VIBRANCE MAXX

|         |                |              |                                 |
|---------|----------------|--------------|---------------------------------|
| Version | Revision Date: | SDS Number:  | Date of last issue: 01/29/2016  |
| 1.2     | 07/21/2026     | S00031137261 | Date of first issue: 01/29/2016 |

|                               |              |        |     |
|-------------------------------|--------------|--------|-----|
| diazaporphyrinephthalocyanine |              |        |     |
| sedaxane                      | 874967-67-6* | 4.6901 | -   |
| metalaxyl-M (ISO)             | 70630-17-0*  | 3.52   | -   |
| fludioxonil (ISO)             | 131341-86-1* | 2.35   | -   |
| triethylamine                 | 121-44-8*    | <= 0.1 | TSC |

\* Indicates that the identifier is a CAS No.

TSC- the actual concentration or concentration range is withheld as a trade secret

### SECTION 4. FIRST AID MEASURES

|                                                             |                                                                                                                                                                                                           |
|-------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| General advice                                              | : Have the product container, label or Safety Data Sheet with you when calling the emergency number, a poison control center or physician, or going for treatment.                                        |
| If inhaled                                                  | : Take the victim into fresh air.<br>If breathing is irregular or stopped, administer artificial respiration.<br>Keep patient warm and at rest.<br>Call a physician or poison control center immediately. |
| In case of skin contact                                     | : Take off all contaminated clothing immediately.<br>Wash off immediately with plenty of water.<br>If skin irritation persists, call a physician.<br>Wash contaminated clothing before re-use.            |
| In case of eye contact                                      | : Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes.<br>Remove contact lenses.<br>Immediate medical attention is required.                                          |
| If swallowed                                                | : If swallowed, seek medical advice immediately and show this container or label.<br>Do NOT induce vomiting.                                                                                              |
| Most important symptoms and effects, both acute and delayed | : Nonspecific<br>No symptoms known or expected.                                                                                                                                                           |
| Notes to physician                                          | : There is no specific antidote available.<br>Treat symptomatically.                                                                                                                                      |

### SECTION 5. FIRE-FIGHTING MEASURES

|                                |                                                                                                                                                                                                     |
|--------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Suitable extinguishing media   | : Extinguishing media - small fires<br>Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide.<br>Extinguishing media - large fires<br>Alcohol-resistant foam<br>or<br>Water spray |
| Unsuitable extinguishing media | : Do not use a solid water stream as it may scatter and spread fire.                                                                                                                                |

# SAFETY DATA SHEET

according to the OSHA Hazard Communication Standard



## VIBRANCE MAXX

|         |                |              |                                 |
|---------|----------------|--------------|---------------------------------|
| Version | Revision Date: | SDS Number:  | Date of last issue: 01/29/2016  |
| 1.2     | 07/21/2026     | S00031137261 | Date of first issue: 01/29/2016 |

- |                                                |   |                                                                                                                                                                                                                             |
|------------------------------------------------|---|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Specific hazards during fire fighting          | : | As the product contains combustible organic ingredients, fire will produce dense black smoke containing hazardous products of combustion (see section 10).<br>Exposure to decomposition products may be a hazard to health. |
| Hazardous combustion products                  | : | Carbon oxides<br>Nitrogen oxides (NOx)<br>Fluorine compounds<br>Sulfur oxides                                                                                                                                               |
| Further information                            | : | Do not allow run-off from fire fighting to enter drains or water courses.<br>Cool closed containers exposed to fire with water spray.                                                                                       |
| Special protective equipment for fire-fighters | : | Wear full protective clothing and self-contained breathing apparatus.                                                                                                                                                       |

## SECTION 6. ACCIDENTAL RELEASE MEASURES

- |                                                                     |   |                                                                                                                                                                                                                                                                                                                                                                       |
|---------------------------------------------------------------------|---|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Personal precautions, protective equipment and emergency procedures | : | Refer to protective measures listed in sections 7 and 8.                                                                                                                                                                                                                                                                                                              |
| Environmental precautions                                           | : | Prevent further leakage or spillage if safe to do so.<br>Do not flush into surface water or sanitary sewer system.<br>If the product contaminates rivers and lakes or drains inform respective authorities.                                                                                                                                                           |
| Methods and materials for containment and cleaning up               | : | Contain spillage, and then collect with non-combustible absorbent material, (e.g. sand, earth, diatomaceous earth, vermiculite) and place in container for disposal according to local / national regulations (see section 13).<br>Clean contaminated surface thoroughly.<br>Clean with detergents. Avoid solvents.<br>Retain and dispose of contaminated wash water. |

## SECTION 7. HANDLING AND STORAGE

- |                             |   |                                                                                                                                                                                                                   |
|-----------------------------|---|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Advice on safe handling     | : | No special protective measures against fire required.<br>Avoid contact with skin and eyes.<br>When using do not eat, drink or smoke.<br>For personal protection see section 8.                                    |
| Conditions for safe storage | : | No special storage conditions required.<br>Keep containers tightly closed in a dry, cool and well-ventilated place.<br>Keep out of the reach of children.<br>Keep away from food, drink and animal feedingstuffs. |

# SAFETY DATA SHEET

according to the OSHA Hazard Communication Standard



## VIBRANCE MAXX

Version 1.2      Revision Date: 07/21/2026      SDS Number: S00031137261      Date of last issue: 01/29/2016  
Date of first issue: 01/29/2016

### SECTION 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

#### Ingredients with workplace control parameters

| Components                                          | CAS-No.     | Value type<br>(Form of exposure)   | Control parameters / Permissible concentration | Basis     |
|-----------------------------------------------------|-------------|------------------------------------|------------------------------------------------|-----------|
| propane-1,2-diol                                    | 57-55-6     | TWA                                | 10 mg/m <sup>3</sup>                           | US WEEL   |
| tetrabenzo-5,10,15,20-diazaporphyrinephthalocyanine | 147-14-8    | TWA                                | 1 mg/m <sup>3</sup><br>(Copper)                | NIOSH REL |
| sedaxane                                            | 874967-67-6 | TWA                                | 5 mg/m <sup>3</sup>                            | Syngenta  |
| metalaxyl-M (ISO)                                   | 70630-17-0  | TWA                                | 5 mg/m <sup>3</sup>                            | Syngenta  |
| fludioxonil (ISO)                                   | 131341-86-1 | TWA                                | 5 mg/m <sup>3</sup>                            | Syngenta  |
|                                                     |             | TWA (Inhalable particulate matter) | 1 mg/m <sup>3</sup>                            | ACGIH     |
| triethylamine                                       | 121-44-8    | TWA                                | 0.5 ppm                                        | ACGIH     |
|                                                     |             | STEL                               | 1 ppm                                          | ACGIH     |
|                                                     |             | TWA                                | 25 ppm<br>100 mg/m <sup>3</sup>                | OSHA Z-1  |
|                                                     |             | STEL                               | 15 ppm<br>60 mg/m <sup>3</sup>                 | OSHA P0   |
|                                                     |             | TWA                                | 10 ppm<br>40 mg/m <sup>3</sup>                 | OSHA P0   |

**Engineering measures** : THE FOLLOWING RECOMMENDATIONS FOR EXPOSURE CONTROLS/PERSONAL PROTECTION ARE INTENDED FOR THE MANUFACTURE, FORMULATION AND PACKAGING OF THE PRODUCT. FOR COMMERCIAL APPLICATIONS AND/OR ON-FARM APPLICATIONS CONSULT THE PRODUCT LABEL.

Containment and/or segregation is the most reliable technical protection measure if exposure cannot be eliminated.

The extent of these protection measures depends on the actual risks in use.

Maintain air concentrations below occupational exposure standards.

Where necessary, seek additional occupational hygiene advice.

#### Personal protective equipment

**Respiratory protection** : No personal respiratory protective equipment normally required.  
When workers are facing concentrations above the exposure limit they must use appropriate certified respirators.

**Hand protection**

**Remarks** : Wear protective gloves. The choice of an appropriate glove

# SAFETY DATA SHEET

according to the OSHA Hazard Communication Standard



## VIBRANCE MAXX

|         |                |              |                                 |
|---------|----------------|--------------|---------------------------------|
| Version | Revision Date: | SDS Number:  | Date of last issue: 01/29/2016  |
| 1.2     | 07/21/2026     | S00031137261 | Date of first issue: 01/29/2016 |

does not only depend on its material but also on other quality features and is different from one producer to the other. Please observe the instructions regarding permeability and breakthrough time which are provided by the supplier of the gloves. Also take into consideration the specific local conditions under which the product is used, such as the danger of cuts, abrasion, and the contact time. The break through time depends amongst other things from the material, the thickness and the type of glove and therefore has to be measured for each case. Gloves should be discarded and replaced if there is any indication of degradation or chemical breakthrough.

Eye protection : No special protective equipment required.

Skin and body protection : Choose body protection in relation to its type, to the concentration and amount of dangerous substances, and to the specific work-place.  
Remove and wash contaminated clothing before re-use.  
Wear as appropriate:  
Impervious clothing

Protective measures : The use of technical measures should always have priority over the use of personal protective equipment.  
When selecting personal protective equipment, seek appropriate professional advice.

## SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance : liquid

Color : blue

Odor : No data available

Odor Threshold : No data available

pH : > 2 - 6  
Concentration: 100 %w/v

Melting point/freezing point : No data available

Initial boiling point and boiling range : No data available

Flash point : Method: Pensky-Martens closed cup  
does not flash

Evaporation rate : No data available

Flammability (solid, gas) : No data available

Upper explosion limit / Upper flammability limit : No data available

# SAFETY DATA SHEET

according to the OSHA Hazard Communication Standard



## VIBRANCE MAXX

|         |                |              |                                 |
|---------|----------------|--------------|---------------------------------|
| Version | Revision Date: | SDS Number:  | Date of last issue: 01/29/2016  |
| 1.2     | 07/21/2026     | S00031137261 | Date of first issue: 01/29/2016 |

|                                                  |   |                                                          |
|--------------------------------------------------|---|----------------------------------------------------------|
| Lower explosion limit / Lower flammability limit | : | No data available                                        |
| Vapor pressure                                   | : | No data available                                        |
| Relative vapor density                           | : | No data available                                        |
| Density                                          | : | 1.05 - 1.09 g/cm <sup>3</sup> (68 °F / 20 °C)            |
| Solubility(ies)                                  | : |                                                          |
| Solubility in other solvents                     | : | No data available                                        |
| Partition coefficient: n-octanol/water           | : | No data available                                        |
| Autoignition temperature                         | : | 833 °F / 445 °C                                          |
| Decomposition temperature                        | : | No data available                                        |
| Viscosity                                        | : |                                                          |
| Viscosity, kinematic                             | : | No data available                                        |
| Explosive properties                             | : | Not explosive                                            |
| Oxidizing properties                             | : | The substance or mixture is not classified as oxidizing. |
| Particle characteristics                         | : |                                                          |
| Particle size                                    | : | No data available                                        |

## SECTION 10. STABILITY AND REACTIVITY

|                                    |   |                                                             |
|------------------------------------|---|-------------------------------------------------------------|
| Reactivity                         | : | None reasonably foreseeable.                                |
| Chemical stability                 | : | Stable under normal conditions.                             |
| Possibility of hazardous reactions | : | No dangerous reaction known under conditions of normal use. |
| Conditions to avoid                | : | No decomposition if used as directed.                       |
| Incompatible materials             | : | None known.                                                 |
| Hazardous decomposition products   | : | No hazardous decomposition products are known.              |

## SECTION 11. TOXICOLOGICAL INFORMATION

### Information on likely routes of exposure

Ingestion  
Inhalation  
Skin contact  
Eye contact

### Acute toxicity

Based on available data, the classification criteria are not met.

### Product:

# SAFETY DATA SHEET

according to the OSHA Hazard Communication Standard



## VIBRANCE MAXX

|         |                |              |                                 |
|---------|----------------|--------------|---------------------------------|
| Version | Revision Date: | SDS Number:  | Date of last issue: 01/29/2016  |
| 1.2     | 07/21/2026     | S00031137261 | Date of first issue: 01/29/2016 |

|                           |                                                                                                                   |
|---------------------------|-------------------------------------------------------------------------------------------------------------------|
| Acute oral toxicity       | : LD50 (Rat, female): 5,000 mg/kg<br>Remarks: Not classified due to lack of data.                                 |
| Acute inhalation toxicity | : LC50 (Rat, male and female): > 2.55 mg/l<br>Test atmosphere: dust/mist                                          |
| Acute dermal toxicity     | : LD50 (Rat, male and female): > 5,000 mg/kg<br>Assessment: The substance or mixture has no acute dermal toxicity |

### Components:

#### **propane-1,2-diol:**

|                           |                                                                                                     |
|---------------------------|-----------------------------------------------------------------------------------------------------|
| Acute oral toxicity       | : LD50 (Rat): > 20,000 mg/kg<br><br>Assessment: The substance or mixture has no acute oral toxicity |
| Acute inhalation toxicity | : LC50 (Rabbit): 317,042 mg/l<br>Exposure time: 2 h<br>Test atmosphere: dust/mist                   |
| Acute dermal toxicity     | : LD50 (Rabbit): > 2,000 mg/kg<br>Assessment: The substance or mixture has no acute dermal toxicity |

#### **tetrabenzo-5,10,15,20-diazaporphyrinephthalocyanine:**

|                     |                                                                                                                               |
|---------------------|-------------------------------------------------------------------------------------------------------------------------------|
| Acute oral toxicity | : LD50 Oral: Assessment: The substance or mixture has no acute oral toxicity<br>Remarks: Based on data from similar materials |
|---------------------|-------------------------------------------------------------------------------------------------------------------------------|

#### **sedaxane:**

|                           |                                                                                                                                                                          |
|---------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Acute oral toxicity       | : LD50 (Rat, female): 5,000 mg/kg                                                                                                                                        |
| Acute inhalation toxicity | : LC50 (Rat, male and female): > 5.244 mg/l<br>Exposure time: 4 h<br>Test atmosphere: dust/mist<br>Assessment: The substance or mixture has no acute inhalation toxicity |
| Acute dermal toxicity     | : LD50 (Rat, male and female): > 5,000 mg/kg                                                                                                                             |

#### **metalaxyl-M (ISO):**

|                           |                                                                                                                                                                                                                      |
|---------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Acute oral toxicity       | : LD50 (Rat, female): 375 mg/kg                                                                                                                                                                                      |
| Acute inhalation toxicity | : LC50 (Rat, male and female): > 2.29 mg/l<br>Exposure time: 4 h<br>Test atmosphere: dust/mist<br>Assessment: The substance or mixture has no acute inhalation toxicity<br>Remarks: Highest attainable concentration |

# SAFETY DATA SHEET

according to the OSHA Hazard Communication Standard



## VIBRANCE MAXX

|         |                |              |                                 |
|---------|----------------|--------------|---------------------------------|
| Version | Revision Date: | SDS Number:  | Date of last issue: 01/29/2016  |
| 1.2     | 07/21/2026     | S00031137261 | Date of first issue: 01/29/2016 |

Acute dermal toxicity : LD50 (Rat, male and female): > 2,000 mg/kg  
Assessment: The substance or mixture has no acute dermal toxicity

### **fludioxonil (ISO):**

Acute oral toxicity : LD50 (Rat, male and female): > 5,000 mg/kg

Acute inhalation toxicity : LC50 (Rat, male and female): > 2.6 mg/l  
Exposure time: 4 h  
Test atmosphere: dust/mist  
Assessment: The substance or mixture has no acute inhalation toxicity

Acute dermal toxicity : LD50 (Rat, male and female): > 2,000 mg/kg  
Assessment: The substance or mixture has no acute dermal toxicity

### **triethylamine:**

Acute oral toxicity : Assessment: The component/mixture is toxic after single ingestion.

Acute inhalation toxicity : LC50 (Rat): 7.22 mg/l  
Exposure time: 4 h  
Test atmosphere: vapor

Acute dermal toxicity : LD50 (Rabbit, male): 580 mg/kg

### **Skin corrosion/irritation**

Based on available data, the classification criteria are not met.

### **Product:**

Species : Rabbit  
Result : No skin irritation

### **Components:**

#### **propane-1,2-diol:**

Result : No skin irritation

#### **tetrabenzo-5,10,15,20-diazaporphyrinephthalocyanine:**

Result : No skin irritation  
Remarks : Based on data from similar materials

#### **sedaxane:**

Species : Rabbit  
Result : No skin irritation

#### **metalaxyl-M (ISO):**

# SAFETY DATA SHEET

according to the OSHA Hazard Communication Standard



## VIBRANCE MAXX

|         |                |              |                                 |
|---------|----------------|--------------|---------------------------------|
| Version | Revision Date: | SDS Number:  | Date of last issue: 01/29/2016  |
| 1.2     | 07/21/2026     | S00031137261 | Date of first issue: 01/29/2016 |

Species : Rabbit  
Result : No skin irritation

### **fludioxonil (ISO):**

Species : Rabbit  
Result : No skin irritation

### **triethylamine:**

Species : Rabbit  
Result : Corrosive after 3 minutes or less of exposure

### **Serious eye damage/eye irritation**

Based on available data, the classification criteria are not met.

### **Product:**

Species : Rabbit  
Result : No eye irritation

### **Components:**

#### **propane-1,2-diol:**

Result : No eye irritation

#### **tetrabenzo-5,10,15,20-diazaporphyrinephthalocyanine:**

Result : No eye irritation  
Remarks : Based on data from similar materials

#### **sedaxane:**

Species : Rabbit  
Result : No eye irritation

#### **metalaxyl-M (ISO):**

Species : Rabbit  
Result : Risk of serious damage to eyes.

#### **fludioxonil (ISO):**

Species : Rabbit  
Result : No eye irritation

#### **triethylamine:**

Species : Rabbit  
Result : Irreversible effects on the eye

### **Respiratory or skin sensitization**

#### **Skin sensitization**

Based on available data, the classification criteria are not met.

# SAFETY DATA SHEET

according to the OSHA Hazard Communication Standard



## VIBRANCE MAXX

|         |                |              |                                 |
|---------|----------------|--------------|---------------------------------|
| Version | Revision Date: | SDS Number:  | Date of last issue: 01/29/2016  |
| 1.2     | 07/21/2026     | S00031137261 | Date of first issue: 01/29/2016 |

### Respiratory sensitization

Not classified due to lack of data.

#### Product:

|           |   |                                    |
|-----------|---|------------------------------------|
| Test Type | : | mouse lymphoma cells               |
| Species   | : | Mouse                              |
| Result    | : | Does not cause skin sensitization. |

#### Components:

##### **propane-1,2-diol:**

|        |   |                                    |
|--------|---|------------------------------------|
| Result | : | Does not cause skin sensitization. |
|--------|---|------------------------------------|

##### **tetrabenzo-5,10,15,20-diazaporphyrinephthalocyanine:**

|        |   |                                    |
|--------|---|------------------------------------|
| Result | : | Does not cause skin sensitization. |
|--------|---|------------------------------------|

##### **sedaxane:**

|           |   |                               |
|-----------|---|-------------------------------|
| Test Type | : | Local lymph node assay (LLNA) |
| Species   | : | Mouse                         |
| Result    | : | Not a skin sensitizer.        |

##### **metalaxyl-M (ISO):**

|         |   |                                    |
|---------|---|------------------------------------|
| Species | : | Guinea pig                         |
| Result  | : | Does not cause skin sensitization. |

##### **fludioxonil (ISO):**

|         |   |                                    |
|---------|---|------------------------------------|
| Species | : | Guinea pig                         |
| Result  | : | Does not cause skin sensitization. |

##### **triethylamine:**

|        |   |                                                    |
|--------|---|----------------------------------------------------|
| Result | : | Did not cause sensitization on laboratory animals. |
|--------|---|----------------------------------------------------|

### Germ cell mutagenicity

Not classified due to lack of data.

#### Components:

##### **propane-1,2-diol:**

|                                     |   |                                                    |
|-------------------------------------|---|----------------------------------------------------|
| Germ cell mutagenicity - Assessment | : | Animal testing did not show any mutagenic effects. |
|-------------------------------------|---|----------------------------------------------------|

##### **tetrabenzo-5,10,15,20-diazaporphyrinephthalocyanine:**

|                                     |   |                                                                   |
|-------------------------------------|---|-------------------------------------------------------------------|
| Germ cell mutagenicity - Assessment | : | Not mutagenic in Ames Test., Based on data from similar materials |
|-------------------------------------|---|-------------------------------------------------------------------|

##### **sedaxane:**

|                                     |   |                                                                                                   |
|-------------------------------------|---|---------------------------------------------------------------------------------------------------|
| Germ cell mutagenicity - Assessment | : | Animal testing did not show any mutagenic effects., In vitro tests did not show mutagenic effects |
|-------------------------------------|---|---------------------------------------------------------------------------------------------------|

# SAFETY DATA SHEET

according to the OSHA Hazard Communication Standard



## VIBRANCE MAXX

|         |                |              |                                 |
|---------|----------------|--------------|---------------------------------|
| Version | Revision Date: | SDS Number:  | Date of last issue: 01/29/2016  |
| 1.2     | 07/21/2026     | S00031137261 | Date of first issue: 01/29/2016 |

### metalaxyl-M (ISO):

Germ cell mutagenicity - Assessment : Animal testing did not show any mutagenic effects.

### fludioxonil (ISO):

Germ cell mutagenicity - Assessment : Animal testing did not show any mutagenic effects.

### triethylamine:

Germ cell mutagenicity - Assessment : Animal testing did not show any mutagenic effects.

### Carcinogenicity

Not classified due to lack of data.

### Components:

#### propane-1,2-diol:

Carcinogenicity - Assessment : No evidence of carcinogenicity in animal studies.

#### sedaxane:

Carcinogenicity - Assessment : Weight of evidence does not support classification as a carcinogen. At extremely high doses, numerically higher incidences of uterine, thyroid and liver tumors (male and/or female rats) and liver tumors (male mice) were within the range of normal background variation and thus considered unrelated to treatment. Some Regulatory Authorities have taken a more conservative position that these high-dose findings are treatment-related in rats and mice. The dose levels where these findings occur are not relevant to human exposure levels.

### metalaxyl-M (ISO):

Carcinogenicity - Assessment : No evidence of carcinogenicity in animal studies.

### fludioxonil (ISO):

Carcinogenicity - Assessment : No evidence of carcinogenicity in animal studies.

### triethylamine:

Carcinogenicity - Assessment : No data available

### IARC

No ingredient of this product present at levels greater than or equal to 0.1% is identified as probable, possible or confirmed human carcinogen by IARC.

### OSHA

No component of this product present at levels greater than or equal to 0.1% is on OSHA's list of regulated carcinogens.

### NTP

No ingredient of this product present at levels greater than or equal to 0.1% is identified as a known or anticipated carcinogen by NTP.

### Reproductive toxicity

Not classified due to lack of data.

# SAFETY DATA SHEET

according to the OSHA Hazard Communication Standard



## VIBRANCE MAXX

|         |                |              |                                 |
|---------|----------------|--------------|---------------------------------|
| Version | Revision Date: | SDS Number:  | Date of last issue: 01/29/2016  |
| 1.2     | 07/21/2026     | S00031137261 | Date of first issue: 01/29/2016 |

### Components:

#### **propane-1,2-diol:**

Reproductive toxicity - Assessment : No toxicity to reproduction, No effects on or via lactation

#### **sedaxane:**

Reproductive toxicity - Assessment : No toxicity to reproduction

#### **metalaxyl-M (ISO):**

Reproductive toxicity - Assessment : No toxicity to reproduction

#### **fludioxonil (ISO):**

Reproductive toxicity - Assessment : No toxicity to reproduction  
No effects on or via lactation

#### **triethylamine:**

Reproductive toxicity - Assessment : No toxicity to reproduction, Information given is based on data obtained from similar substances.  
No effects on or via lactation

### **STOT-single exposure**

Not classified due to lack of data.

### Components:

#### **propane-1,2-diol:**

Assessment : The substance or mixture is not classified as specific target organ toxicant, single exposure.

#### **sedaxane:**

Assessment : The substance or mixture is not classified as specific target organ toxicant, single exposure.

#### **fludioxonil (ISO):**

Assessment : The substance or mixture is not classified as specific target organ toxicant, single exposure.

#### **triethylamine:**

Assessment : The substance or mixture is classified as specific target organ toxicant, single exposure, category 3 with respiratory tract irritation.

### **STOT-repeated exposure**

Not classified due to lack of data.

# SAFETY DATA SHEET

according to the OSHA Hazard Communication Standard



## VIBRANCE MAXX

|         |                |              |                                 |
|---------|----------------|--------------|---------------------------------|
| Version | Revision Date: | SDS Number:  | Date of last issue: 01/29/2016  |
| 1.2     | 07/21/2026     | S00031137261 | Date of first issue: 01/29/2016 |

### Components:

#### **propane-1,2-diol:**

Assessment : The substance or mixture is not classified as specific target organ toxicant, repeated exposure.

#### **sedaxane:**

Assessment : The substance or mixture is not classified as specific target organ toxicant, repeated exposure.

#### **metalaxyl-M (ISO):**

Assessment : The substance or mixture is not classified as specific target organ toxicant, single exposure.

#### **fludioxonil (ISO):**

Assessment : The substance or mixture is not classified as specific target organ toxicant, repeated exposure.

#### **triethylamine:**

Assessment : The substance or mixture is not classified as specific target organ toxicant, repeated exposure.

### **Aspiration toxicity**

Not classified due to lack of data.

### Components:

#### **propane-1,2-diol:**

No aspiration toxicity classification

#### **fludioxonil (ISO):**

No aspiration toxicity classification

#### **triethylamine:**

No aspiration toxicity classification

## SECTION 12. ECOLOGICAL INFORMATION

### **Ecotoxicity**

#### Product:

Toxicity to fish : LC50 (Oncorhynchus mykiss (rainbow trout)): 15.3 mg/l  
Exposure time: 96 h

Toxicity to daphnia and other : EC50 (Daphnia magna (Water flea)): 40.4 mg/l  
aquatic invertebrates Exposure time: 48 h

Toxicity to algae/aquatic : ErC50 (Raphidocelis subcapitata (freshwater green alga)):

# SAFETY DATA SHEET

according to the OSHA Hazard Communication Standard



## VIBRANCE MAXX

|         |                |              |                                 |
|---------|----------------|--------------|---------------------------------|
| Version | Revision Date: | SDS Number:  | Date of last issue: 01/29/2016  |
| 1.2     | 07/21/2026     | S00031137261 | Date of first issue: 01/29/2016 |

plants

31.2 mg/l  
Exposure time: 96 h

NOEC (Raphidocelis subcapitata (freshwater green alga)):  
3.05 mg/l  
End point: Growth rate  
Exposure time: 96 h

EC10 (Raphidocelis subcapitata (freshwater green alga)):  
12.8 mg/l  
End point: Growth rate  
Exposure time: 96 h

### Components:

#### **propane-1,2-diol:**

Toxicity to fish : LC50 (Oncorhynchus mykiss (rainbow trout)): 40,613 mg/l  
Exposure time: 96 h  
Test Type: static test

Toxicity to daphnia and other aquatic invertebrates : (Ceriodaphnia dubia (water flea)): 18,340 mg/l  
Exposure time: 48 h  
Test Type: static test

Toxicity to algae/aquatic plants : ErC50 (Raphidocelis subcapitata (freshwater green alga)):  
19,000 mg/l  
Exposure time: 96 h

Toxicity to daphnia and other aquatic invertebrates (Chronic toxicity) : NOEC (Ceriodaphnia dubia (Water flea)): 13,020 mg/l  
Exposure time: 7 d  
Test Type: semi-static test

#### **tetrabenzo-5,10,15,20-diazaporphyrinephthalocyanine:**

#### **Ecotoxicology Assessment**

Chronic aquatic toxicity : This product has no known ecotoxicological effects.

#### **sedaxane:**

Toxicity to fish : LC50 (Cyprinus carpio (Carp)): 0.62 mg/l  
Exposure time: 96 h

LC50 (Pimephales promelas (fathead minnow)): 0.98 mg/l  
Exposure time: 96 h

LC50 (Oncorhynchus mykiss (rainbow trout)): 1.1 mg/l  
Exposure time: 96 h

Toxicity to daphnia and other aquatic invertebrates : EC50 (Daphnia magna (Water flea)): 6.10 mg/l  
Exposure time: 48 h

LC50 (Americamysis): 1.5 mg/l  
Exposure time: 96 h

# SAFETY DATA SHEET

according to the OSHA Hazard Communication Standard



## VIBRANCE MAXX

|         |                |              |                                 |
|---------|----------------|--------------|---------------------------------|
| Version | Revision Date: | SDS Number:  | Date of last issue: 01/29/2016  |
| 1.2     | 07/21/2026     | S00031137261 | Date of first issue: 01/29/2016 |

Toxicity to algae/aquatic plants : ErC50 (Raphidocelis subcapitata (freshwater green alga)): 2.8 mg/l  
Exposure time: 72 h

ErC50 (Lemna gibba (gibbous duckweed)): 6.5 mg/l  
Exposure time: 7 d

EC10 (Lemna gibba (gibbous duckweed)): 2.398 mg/l  
End point: Growth rate  
Exposure time: 7 d

EC10 (Raphidocelis subcapitata (freshwater green alga)): 1.119 mg/l  
End point: Growth rate  
Exposure time: 72 h

Toxicity to fish (Chronic toxicity) : NOEC (Pimephales promelas (fathead minnow)): 0.165 mg/l  
Exposure time: 33 d

Toxicity to daphnia and other aquatic invertebrates (Chronic toxicity) : EC10 (Daphnia magna (Water flea)): 0.711 mg/l  
Exposure time: 21 d

### metalaxyl-M (ISO):

Toxicity to fish : LC50 (Oncorhynchus mykiss (rainbow trout)): > 100 mg/l  
Exposure time: 96 h

LC50 (Cyprinus carpio (Carp)): > 100 mg/l  
Exposure time: 96 h

Toxicity to daphnia and other aquatic invertebrates : EC50 (Daphnia magna (Water flea)): > 100 mg/l  
Exposure time: 48 h

Toxicity to algae/aquatic plants : ErC50 (Raphidocelis subcapitata (freshwater green alga)): 271 mg/l  
Exposure time: 96 h

NOEC (Raphidocelis subcapitata (freshwater green alga)): 19.7 mg/l  
End point: Growth rate  
Exposure time: 96 h

Toxicity to fish (Chronic toxicity) : NOEC (Oncorhynchus mykiss (rainbow trout)): 50 mg/l  
Exposure time: 28 d

Toxicity to daphnia and other aquatic invertebrates (Chronic toxicity) : NOEC (Daphnia magna (Water flea)): 25 mg/l  
Exposure time: 21 d

Toxicity to microorganisms : EC50 (activated sludge): > 100 mg/l  
Exposure time: 3 h

### fludioxonil (ISO):

Toxicity to fish : LC50 (Oncorhynchus mykiss (rainbow trout)): 0.23 mg/l

# SAFETY DATA SHEET

according to the OSHA Hazard Communication Standard



## VIBRANCE MAXX

|         |                |              |                                 |
|---------|----------------|--------------|---------------------------------|
| Version | Revision Date: | SDS Number:  | Date of last issue: 01/29/2016  |
| 1.2     | 07/21/2026     | S00031137261 | Date of first issue: 01/29/2016 |

|                                                                        |                                                                                                                      |
|------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------|
|                                                                        | Exposure time: 96 h                                                                                                  |
|                                                                        | LC50 (Pimephales promelas (fathead minnow)): 0.7 mg/l<br>Exposure time: 96 h                                         |
| Toxicity to daphnia and other aquatic invertebrates                    | : EC50 (Daphnia magna (Water flea)): 0.4 mg/l<br>Exposure time: 48 h                                                 |
|                                                                        | EC50 (Americamysis): 0.27 mg/l<br>Exposure time: 96 h                                                                |
| Toxicity to algae/aquatic plants                                       | : ErC50 (Raphidocelis subcapitata (freshwater green alga)): 0.259 mg/l<br>Exposure time: 96 h                        |
|                                                                        | EC10 (Raphidocelis subcapitata (freshwater green alga)): 0.077 mg/l<br>End point: Growth rate<br>Exposure time: 96 h |
|                                                                        | ErC50 (Skeletonema costatum (marine diatom)): 0.43 mg/l<br>Exposure time: 96 h                                       |
|                                                                        | NOEC (Skeletonema costatum (marine diatom)): 0.14 mg/l<br>End point: Growth rate<br>Exposure time: 96 h              |
| Toxicity to fish (Chronic toxicity)                                    | : NOEC (Oncorhynchus mykiss (rainbow trout)): 0.04 mg/l<br>Exposure time: 28 d                                       |
|                                                                        | EC10 (Pimephales promelas (fathead minnow)): 0.018 mg/l<br>Exposure time: 116 d                                      |
| Toxicity to daphnia and other aquatic invertebrates (Chronic toxicity) | : NOEC (Daphnia magna (Water flea)): 0.035 mg/l<br>Exposure time: 21 d                                               |
|                                                                        | NOEC (Americamysis): 0.018 mg/l<br>Exposure time: 28 d                                                               |
| Toxicity to microorganisms                                             | : EC50 (activated sludge): > 1,000 mg/l<br>Exposure time: 3 h                                                        |
| <b>triethylamine:</b>                                                  |                                                                                                                      |
| Toxicity to fish                                                       | : LC50 (Oncorhynchus mykiss (rainbow trout)): 36 mg/l<br>Exposure time: 96 h                                         |
| Toxicity to algae/aquatic plants                                       | : ErC50 (Raphidocelis subcapitata (freshwater green alga)): 9.8 mg/l<br>Exposure time: 72 h                          |

# SAFETY DATA SHEET

according to the OSHA Hazard Communication Standard



## VIBRANCE MAXX

|         |                |              |                                 |
|---------|----------------|--------------|---------------------------------|
| Version | Revision Date: | SDS Number:  | Date of last issue: 01/29/2016  |
| 1.2     | 07/21/2026     | S00031137261 | Date of first issue: 01/29/2016 |

### Persistence and degradability

#### Components:

##### **propane-1,2-diol:**

Biodegradability : Result: Readily biodegradable.

##### **tetrabenzo-5,10,15,20-diazaporphyrinephthalocyanine:**

Biodegradability : Result: Not readily biodegradable.

##### **sedaxane:**

Biodegradability : Result: Not readily biodegradable.

Stability in water : Degradation half life: > 1 yr  
Remarks: Persistent in water.

##### **metalaxyl-M (ISO):**

Biodegradability : Result: Not readily biodegradable.

Stability in water : Degradation half life: 22.4 - 47.5 d  
Remarks: Product is not persistent.

##### **fludioxonil (ISO):**

Biodegradability : Result: Not readily biodegradable.

Stability in water : Remarks: Persistent in water.

##### **triethylamine:**

Biodegradability : Result: Readily biodegradable.

### Bioaccumulative potential

#### Components:

##### **sedaxane:**

Bioaccumulation : Remarks: Does not bioaccumulate.

Partition coefficient: n-octanol/water : log Pow: 3.3 (77 °F / 25 °C)

##### **metalaxyl-M (ISO):**

Bioaccumulation : Remarks: Low bioaccumulation potential.

Partition coefficient: n-octanol/water : log Pow: 1.71 (77 °F / 25 °C)

##### **fludioxonil (ISO):**

Bioaccumulation : Remarks: Does not bioaccumulate.

Partition coefficient: n-octanol/water : log Pow: 4.12 (77 °F / 25 °C)

# SAFETY DATA SHEET

according to the OSHA Hazard Communication Standard



## VIBRANCE MAXX

|         |                |              |                                 |
|---------|----------------|--------------|---------------------------------|
| Version | Revision Date: | SDS Number:  | Date of last issue: 01/29/2016  |
| 1.2     | 07/21/2026     | S00031137261 | Date of first issue: 01/29/2016 |

octanol/water

### Mobility in soil

#### Components:

##### **sedaxane:**

Distribution among environmental compartments : Remarks: Moderately mobile in soils

Stability in soil : Dissipation time: 83 d  
Percentage dissipation: 50 % (DT50)  
Remarks: Product is not persistent.

##### **metalaxyl-M (ISO):**

Distribution among environmental compartments : Remarks: Highly mobile in soils

Stability in soil : Dissipation time: < 50 d  
Percentage dissipation: 50 % (DT50)  
Remarks: Product is not persistent.

##### **fludioxonil (ISO):**

Distribution among environmental compartments : Remarks: immobile

Stability in soil : Dissipation time: 25.9 d  
Percentage dissipation: 50 % (DT50)  
Remarks: Product is not persistent.

### Other adverse effects

#### Components:

##### **sedaxane:**

Results of PBT and vPvB assessment : Not persistent, bioaccumulative, and toxic (PBT).

##### **metalaxyl-M (ISO):**

Results of PBT and vPvB assessment : Not persistent, bioaccumulative, and toxic (PBT).  
Remarks: Weight of evidence

Endocrine disrupting potential : Does not have endocrine disrupting properties.  
Remarks: Weight of evidence

##### **fludioxonil (ISO):**

Results of PBT and vPvB assessment : Not persistent, bioaccumulative, and toxic (PBT).

Endocrine disrupting potential : Does not have endocrine disrupting properties.

##### **triethylamine:**

Results of PBT and vPvB assessment : Not persistent, bioaccumulative, and toxic (PBT).

## SECTION 13. DISPOSAL CONSIDERATIONS

### Disposal methods

Waste from residues : Do not contaminate ponds, waterways or ditches with chemi-

# SAFETY DATA SHEET

according to the OSHA Hazard Communication Standard



## VIBRANCE MAXX

|         |                |              |                                 |
|---------|----------------|--------------|---------------------------------|
| Version | Revision Date: | SDS Number:  | Date of last issue: 01/29/2016  |
| 1.2     | 07/21/2026     | S00031137261 | Date of first issue: 01/29/2016 |

cal or used container.  
Do not dispose of waste into sewer.  
Where possible recycling is preferred to disposal or incineration.  
If recycling is not practicable, dispose of in compliance with local regulations.  
This product will not be classified as a RCRA characteristic hazardous waste when discarded.

Contaminated packaging : Empty remaining contents.  
Triple rinse containers.  
Empty containers should be taken to an approved waste handling site for recycling or disposal.  
Do not re-use empty containers.

## SECTION 14. TRANSPORT INFORMATION

### International Regulations

#### UNRTDG

UN number : UN 3082  
Proper shipping name : ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S.  
(FLUDIOXONIL, SEDAXANE)  
Class : 9  
Packing group : III  
Labels : 9  
Environmentally hazardous : yes  
Remarks : This product can be subject to exemptions when packaged in single or combination packagings containing a net quantity per single or inner packaging of 5 L or less for liquids, or having a net mass of 5 kg or less for solids.

#### IATA-DGR

UN/ID No. : UN 3082  
Proper shipping name : Environmentally hazardous substance, liquid, n.o.s.  
(FLUDIOXONIL, SEDAXANE)  
Class : 9  
Packing group : III  
Labels : Miscellaneous  
Packing instruction (cargo aircraft) : 964  
Packing instruction (passenger aircraft) : 964  
Environmentally hazardous : yes  
Remarks : This product can be subject to exemptions when packaged in single or combination packagings containing a net quantity per single or inner packaging of 5 L or less for liquids, or having a net mass of 5 kg or less for solids.

#### IMDG-Code

UN number : UN 3082  
Proper shipping name : ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S.  
(FLUDIOXONIL, SEDAXANE)  
Class : 9

# SAFETY DATA SHEET

according to the OSHA Hazard Communication Standard



## VIBRANCE MAXX

|         |                |              |                                 |
|---------|----------------|--------------|---------------------------------|
| Version | Revision Date: | SDS Number:  | Date of last issue: 01/29/2016  |
| 1.2     | 07/21/2026     | S00031137261 | Date of first issue: 01/29/2016 |

|                  |   |                                                                                                                                                                                                                                  |
|------------------|---|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Packing group    | : | III                                                                                                                                                                                                                              |
| Labels           | : | 9                                                                                                                                                                                                                                |
| EmS Code         | : | F-A, S-F                                                                                                                                                                                                                         |
| Marine pollutant | : | yes                                                                                                                                                                                                                              |
| Remarks          | : | This product can be subject to exemptions when packaged in single or combination packagings containing a net quantity per single or inner packaging of 5 L or less for liquids, or having a net mass of 5 kg or less for solids. |

### Transport in bulk according to IMO instruments

Not applicable for product as supplied.

### Domestic regulation

#### 49 CFR

Not regulated as a dangerous good

|         |   |                                                                                                                                                                                     |
|---------|---|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Remarks | : | Shipment by ground under DOT is non-regulated; however it may be shipped per the applicable hazard classification to facilitate multi-modal transport involving ICAO (IATA) or IMO. |
|---------|---|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|

### Special precautions for user

The transport classification(s) provided herein are for informational purposes only, and solely based upon the properties of the unpackaged material as it is described within this Safety Data Sheet. Transportation classifications may vary by mode of transportation, package sizes, and variations in regional or country regulations.

## SECTION 15. REGULATORY INFORMATION

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 for workplace labels of non-pesticide chemicals. Following is the hazard information as required on the pesticide label:

Caution

Harmful if swallowed.

Wash thoroughly with soap and water after handling and before eating, drinking, chewing gum, using tobacco or using the toilet.

### SARA 304 Extremely Hazardous Substances Reportable Quantity

This material does not contain any components with a section 304 EHS RQ.

### SARA 302 Extremely Hazardous Substances Threshold Planning Quantity

This material does not contain any components with a section 302 EHS TPQ.

|                      |   |                 |
|----------------------|---|-----------------|
| SARA 311/312 Hazards | : | No SARA Hazards |
|----------------------|---|-----------------|

|          |   |                                                                                                                                                                                   |
|----------|---|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| SARA 313 | : | This material does not contain any chemical components with known CAS numbers that exceed the threshold (De Minimis) reporting levels established by SARA Title III, Section 313. |
|----------|---|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|

### California Prop. 65

WARNING: This product can expose you to chemicals including sedaxane, which is/are known to the State of California to cause cancer, and ethanediol, which is/are known to the State of California to cause birth defects or other reproductive harm. For more information go to [www.P65Warnings.ca.gov](http://www.P65Warnings.ca.gov).

# SAFETY DATA SHEET

according to the OSHA Hazard Communication Standard



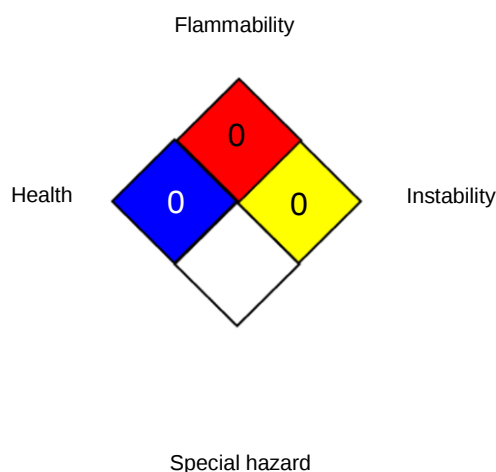
## VIBRANCE MAXX

|         |                |              |                                 |
|---------|----------------|--------------|---------------------------------|
| Version | Revision Date: | SDS Number:  | Date of last issue: 01/29/2016  |
| 1.2     | 07/21/2026     | S00031137261 | Date of first issue: 01/29/2016 |

### SECTION 16. OTHER INFORMATION

#### Further information

##### NFPA 704:



##### HMIS® IV:

|                 |   |   |
|-----------------|---|---|
| HEALTH          | / | 1 |
| FLAMMABILITY    |   | 0 |
| PHYSICAL HAZARD |   | 0 |

HMIS® ratings are based on a 0-4 rating scale, with 0 representing minimal hazards or risks, and 4 representing significant hazards or risks. The "\*" represents a chronic hazard, while the "/" represents the absence of a chronic hazard.

#### Full text of other abbreviations

|                 |                                                                                             |
|-----------------|---------------------------------------------------------------------------------------------|
| ACGIH           | : USA. ACGIH Threshold Limit Values (TLV)                                                   |
| NIOSH REL       | : USA. NIOSH Recommended Exposure Limits                                                    |
| OSHA P0         | : USA. Table Z-1-A Limits for Air Contaminants (1989 vacated values)                        |
| OSHA Z-1        | : USA. Occupational Exposure Limits (OSHA) - Table Z-1 Limits for Air Contaminants          |
| Syngenta        | : Syngenta Occupational Exposure Limits                                                     |
| US WEEL         | : USA. Workplace Environmental Exposure Levels (WEEL)                                       |
| ACGIH / TWA     | : 8-hour, time-weighted average                                                             |
| ACGIH / STEL    | : Short-term exposure limit                                                                 |
| NIOSH REL / TWA | : Time-weighted average concentration for up to a 10-hour workday during a 40-hour workweek |
| OSHA P0 / TWA   | : 8-hour time weighted average                                                              |
| OSHA P0 / STEL  | : Short-term exposure limit                                                                 |
| OSHA Z-1 / TWA  | : 8-hour time weighted average                                                              |
| Syngenta / TWA  | : Time weighted average                                                                     |
| US WEEL / TWA   | : 8-hr TWA                                                                                  |

AIIC - Australian Inventory of Industrial Chemicals; ASTM - American Society for the Testing of Materials; bw - Body weight; CERCLA - Comprehensive Environmental Response, Compensation, and Liability Act; CMR - Carcinogen, Mutagen or Reproductive Toxicant; DIN - Standard of the German Institute for Standardization; DOT - Department of Transportation; DSL - Domestic Substances List (Canada); ECx - Concentration associated with x% response; EHS - Extremely Hazardous Substance; ELx - Loading rate associated with x% response; EmS - Emergency Schedule; ENCS - Existing and New Chemical Substances (Japan); ErCx - Concentration associated with x% growth rate response; ERG - Emergency Response Guide; GHS - Globally Harmonized System; GLP - Good Laboratory Practice; HMIS - Hazardous Materials Identification System; IARC - International Agency for Research on Cancer; IATA - International Air Transport

# SAFETY DATA SHEET

according to the OSHA Hazard Communication Standard



## VIBRANCE MAXX

|         |                |              |                                 |
|---------|----------------|--------------|---------------------------------|
| Version | Revision Date: | SDS Number:  | Date of last issue: 01/29/2016  |
| 1.2     | 07/21/2026     | S00031137261 | Date of first issue: 01/29/2016 |

Association; IBC - International Code for the Construction and Equipment of Ships carrying Dangerous Chemicals in Bulk; IC50 - Half maximal inhibitory concentration; ICAO - International Civil Aviation Organization; IECSC - Inventory of Existing Chemical Substances in China; IMDG - International Maritime Dangerous Goods; IMO - International Maritime Organization; ISHL - Industrial Safety and Health Law (Japan); ISO - International Organization for Standardization; KECI - Korea Existing Chemicals Inventory; LC50 - Lethal Concentration to 50 % of a test population; LD50 - Lethal Dose to 50% of a test population (Median Lethal Dose); MARPOL - International Convention for the Prevention of Pollution from Ships; MSHA - Mine Safety and Health Administration; n.o.s. - Not Otherwise Specified; NFPA - National Fire Protection Association; NO(A)EC - No Observed (Adverse) Effect Concentration; NO(A)EL - No Observed (Adverse) Effect Level; NOELR - No Observable Effect Loading Rate; NTP - National Toxicology Program; NZIoC - New Zealand Inventory of Chemicals; OECD - Organization for Economic Co-operation and Development; OPPTS - Office of Chemical Safety and Pollution Prevention; PBT - Persistent, Bioaccumulative and Toxic substance; PICCS - Philippines Inventory of Chemicals and Chemical Substances; (Q)SAR - (Quantitative) Structure Activity Relationship; RCRA - Resource Conservation and Recovery Act; REACH - Regulation (EC) No 1907/2006 of the European Parliament and of the Council concerning the Registration, Evaluation, Authorization and Restriction of Chemicals; RQ - Reportable Quantity; SADT - Self-Accelerating Decomposition Temperature; SARA - Superfund Amendments and Reauthorization Act; SDS - Safety Data Sheet; TCSI - Taiwan Chemical Substance Inventory; TECI - Thailand Existing Chemicals Inventory; TSCA - Toxic Substances Control Act (United States); UN - United Nations; UNRTDG - United Nations Recommendations on the Transport of Dangerous Goods; vPvB - Very Persistent and Very Bioaccumulative

Revision Date : 07/21/2026

The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text.

US / EN