# SAFETY DATA SHEET
according to the OSHA Hazard Communication Standard

## Praziquantel Formulation

| Version | Revision Date: | SDS Number: | Date of last issue: 04/14/2025 |
|---|---|---|---|
| 3.0 | 06/18/2025 | 11511850-00003 | Date of first issue: 02/19/2025 |

### SECTION 1. IDENTIFICATION

Product name : Praziquantel Formulation
Product code : Hadaclean 5%,Hadaclean A

**Manufacturer or supplier's details**

Company name of supplier : Merck & Co., Inc
Address : 126 E. Lincoln Avenue
Rahway, New Jersey U.S.A. 07065
Telephone : 908-740-4000
Emergency telephone : 1-908-423-6000
E-mail address : EHSDATASTEWARD@merck.com

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

Recommended use : Veterinary product
Restrictions on use : Not applicable

### SECTION 2. HAZARDS IDENTIFICATION

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

Combustible dust

Skin sensitization : Category 1

**Other hazards**

Dust contact with the eyes can lead to mechanical irritation.
Contact with dust can cause mechanical irritation or drying of the skin.

**GHS label elements**

Hazard pictograms :

Signal Word : Warning

Hazard Statements : If small particles are generated during further processing, handling or by other means, may form combustible dust concentrations in air.
H317 May cause an allergic skin reaction.

Precautionary Statements :

**Prevention:**

P261 Avoid breathing dust, fume, gas, mist, vapors or spray.
P272 Contaminated work clothing must not be allowed out of the workplace.
P280 Wear protective gloves.

**Response:**

P302 + P352 IF ON SKIN: Wash with plenty of water.
P333 + P313 If skin irritation or rash occurs: Get medical atten-

tion.
P362 + P364 Take off contaminated clothing and wash it before reuse.

**Disposal:**

P501 Dispose of contents and container to an approved waste disposal plant.

## SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS

Substance / Mixture : Mixture

**Components**

| Chemical name | CAS No./Unique ID | Concentration (% w/w) | Trade secret |
|---|---|---|---|
| Starch | 9005-25-8* | >= 30 - <= 60 | TSC |
| Praziquantel | 55268-74-1* | >= 3 - <= 7 | TSC |
| Dimethyl octadienol | 78-70-6* | >= 0.1 - <= 1 | TSC |
| 3,7-Dimethyl 2,6-octadienal | 5392-40-5* | >= 0.1 - <= 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 : In the case of accident or if you feel unwell, seek medical advice immediately.
When symptoms persist or in all cases of doubt seek medical advice.

If inhaled : If inhaled, remove to fresh air.
Get medical attention if symptoms occur.

In case of skin contact : In case of contact, immediately flush skin with soap and plenty of water.
Remove contaminated clothing and shoes.
Get medical attention.
Wash clothing before reuse.
Thoroughly clean shoes before reuse.

In case of eye contact : If in eyes, rinse well with water.
Get medical attention if irritation develops and persists.

If swallowed : If swallowed, DO NOT induce vomiting.
Get medical attention if symptoms occur.
Rinse mouth thoroughly with water.

Most important symptoms and effects, both acute and delayed : Contact with dust can cause mechanical irritation or drying of the skin.
Dust contact with the eyes can lead to mechanical irritation.
May cause an allergic skin reaction.

Protection of first-aiders : First Aid responders should pay attention to self-protection, and use the recommended personal protective equipment

when the potential for exposure exists (see section 8).

Notes to physician : Treat symptomatically and supportively.

## SECTION 5. FIRE-FIGHTING MEASURES

Suitable extinguishing media : Water spray
Alcohol-resistant foam
Carbon dioxide (CO2)
Dry chemical

Unsuitable extinguishing media : None known.

Specific hazards during fire fighting : Exposure to combustion products may be a hazard to health.

Hazardous combustion products : Carbon oxides
Nitrogen oxides (NOx)

Specific extinguishing methods : Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.
Use water spray to cool unopened containers.
Remove undamaged containers from fire area if it is safe to do so.
Evacuate area.

Special protective equipment for fire-fighters : In the event of fire, wear self-contained breathing apparatus.
Use personal protective equipment.

## SECTION 6. ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures : Use personal protective equipment.
Follow safe handling advice (see section 7) and personal protective equipment recommendations (see section 8).

Environmental precautions : Avoid release to the environment.
Prevent further leakage or spillage if safe to do so.
Retain and dispose of contaminated wash water.
Local authorities should be advised if significant spillages cannot be contained.

Methods and materials for containment and cleaning up : Sweep up or vacuum up spillage and collect in suitable container for disposal.
Avoid dispersal of dust in the air (i.e., clearing dust surfaces with compressed air).
Dust deposits should not be allowed to accumulate on surfaces, as these may form an explosive mixture if they are released into the atmosphere in sufficient concentration.
Local or national regulations may apply to releases and disposal of this material, as well as those materials and items employed in the cleanup of releases. You will need to determine which regulations are applicable.

Sections 13 and 15 of this SDS provide information regarding certain local or national requirements.

## SECTION 7. HANDLING AND STORAGE

| | | |
|---|---|---|
| Technical measures | : | Static electricity may accumulate and ignite suspended dust causing an explosion.<br>Provide adequate precautions, such as electrical grounding and bonding, or inert atmospheres. |
| Local/Total ventilation | : | Use only with adequate ventilation. |
| Advice on safe handling | : | Do not get on skin or clothing.<br>Avoid breathing dust, fume, gas, mist, vapors or spray.<br>Do not swallow.<br>Avoid contact with eyes.<br>Handle in accordance with good industrial hygiene and safety practice, based on the results of the workplace exposure assessment<br>Minimize dust generation and accumulation.<br>Keep container closed when not in use.<br>Keep away from heat and sources of ignition.<br>Take precautionary measures against static discharges.<br>Take care to prevent spills, waste and minimize release to the environment. |
| Conditions for safe storage | : | Keep in properly labeled containers.<br>Store in accordance with the particular national regulations. |
| Materials to avoid | : | Do not store with the following product types:<br>Strong oxidizing agents |

## SECTION 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

**Ingredients with workplace control parameters**

| Components | CAS-No. | Value type (Form of exposure) | Control parameters / Permissible concentration | Basis |
|---|---|---|---|---|
| Starch | 9005-25-8 | TWA | 10 mg/m³ | ACGIH |
| | | TWA (Respirable) | 5 mg/m³ | NIOSH REL |
| | | TWA (total) | 10 mg/m³ | NIOSH REL |
| | | TWA (total dust) | 15 mg/m³ | OSHA Z-1 |
| | | TWA (respirable fraction) | 5 mg/m³ | OSHA Z-1 |
| Praziquantel | 55268-74-1 | TWA | 0.5 mg/m3 (OEB 2) | Internal |
| 3,7-Dimethyl 2,6-octadienal | 5392-40-5 | TWA (Inhalable fraction and vapor) | 5 ppm | ACGIH |

**Engineering measures** : Use feasible engineering controls to minimize exposure to compound.

All engineering controls should be implemented by facility design and operated in accordance with GMP principles to protect products, workers, and the environment.

**Personal protective equipment**

Respiratory protection : General and local exhaust ventilation is recommended to maintain vapor exposures below recommended limits. Where concentrations are above recommended limits or are unknown, appropriate respiratory protection should be worn. Follow OSHA respirator regulations (29 CFR 1910.134) and use NIOSH/MSHA approved respirators. Protection provided by air purifying respirators against exposure to any hazardous chemical is limited. Use a positive pressure air supplied respirator if there is any potential for uncontrolled release, exposure levels are unknown, or any other circumstance where air purifying respirators may not provide adequate protection.

Hand protection
Material : Chemical-resistant gloves

Eye protection : Wear safety glasses with side shields or goggles.
If the work environment or activity involves dusty conditions, mists or aerosols, wear the appropriate goggles.
Wear a faceshield or other full face protection if there is a potential for direct contact to the face with dusts, mists, or aerosols.

Skin and body protection : Work uniform or laboratory coat.

Hygiene measures : If exposure to chemical is likely during typical use, provide eye flushing systems and safety showers close to the working place.
When using do not eat, drink or smoke.
Contaminated work clothing should not be allowed out of the workplace.
Wash contaminated clothing before re-use.
The effective operation of a facility should include review of engineering controls, proper personal protective equipment, appropriate degowning and decontamination procedures, industrial hygiene monitoring, medical surveillance and the use of administrative controls.

## SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

| | | |
|---|---|---|
| Appearance | : | Crystalline solid |
| Color | : | No data available |
| Odor | : | No data available |
| Odor Threshold | : | No data available |
| pH | : | No data available |
| Melting point/freezing point | : | No data available |

| | | |
|---|---|---|
| Initial boiling point and boiling range | : | No data available |
| Flash point | : | Not applicable |
| Evaporation rate | : | Not applicable |
| Flammability (solid, gas) | : | May form explosive dust-air mixture during processing, handling or other means. |
| Flammability (liquids) | : | Not applicable |
| Upper explosion limit / Upper flammability limit | : | No data available |
| Lower explosion limit / Lower flammability limit | : | No data available |
| Vapor pressure | : | Not applicable |
| Relative vapor density | : | Not applicable |
| Relative density | : | No data available |
| Density | : | No data available |
| Solubility(ies) | | |
| Water solubility | : | No data available |
| Partition coefficient: n-octanol/water | : | Not applicable |
| Autoignition temperature | : | No data available |
| Decomposition temperature | : | No data available |
| Viscosity | | |
| Viscosity, kinematic | : | Not applicable |
| Explosive properties | : | Not explosive |
| Oxidizing properties | : | The substance or mixture is not classified as oxidizing. |
| Molecular weight | : | No data available |
| Particle characteristics | | |
| Particle size | : | No data available |

### SECTION 10. STABILITY AND REACTIVITY

| | | |
|---|---|---|
| Reactivity | : | Not classified as a reactivity hazard. |
| Chemical stability | : | Stable under normal conditions. |

| | | |
|---|---|---|
| Possibility of hazardous reactions | : | May form explosive dust-air mixture during processing, handling or other means.<br>Can react with strong oxidizing agents. |
| Conditions to avoid | : | Heat, flames and sparks.<br>Avoid dust formation. |
| Incompatible materials | : | Oxidizing agents |
| Hazardous decomposition products | : | No hazardous decomposition products are known. |

## SECTION 11. TOXICOLOGICAL INFORMATION

**Information on likely routes of exposure**

Inhalation
Skin contact
Ingestion
Eye contact

**Acute toxicity**

Not classified based on available information.

**Product:**

| | | |
|---|---|---|
| Acute oral toxicity | : | Acute toxicity estimate: > 5,000 mg/kg<br>Method: Calculation method |

**Components:**

**Starch:**

| | | |
|---|---|---|
| Acute oral toxicity | : | LD50 (Rat): > 5,000 mg/kg |
| Acute dermal toxicity | : | LD50 (Rabbit): > 2,000 mg/kg |

**Praziquantel:**

| | | |
|---|---|---|
| Acute oral toxicity | : | LD50 (Rat): 2,480 mg/kg<br>LD50 (Mouse): 2,454 mg/kg<br>LD50 (Dog): > 200 mg/kg<br>LD50 (Rabbit): 1,050 mg/kg |

**Dimethyl octadienol:**

| | | |
|---|---|---|
| Acute oral toxicity | : | LD50 (Rat): 2,790 mg/kg<br>Method: OECD Test Guideline 401<br>Remarks: The test was conducted equivalent or similar to guideline |
| Acute inhalation toxicity | : | LC50 (Mouse): > 3.2 mg/l<br>Exposure time: 90 min<br>Test atmosphere: vapor<br>Remarks: No test guideline followed |

| | | |
|---|---|---|
| Acute dermal toxicity | : | LD50 (Rabbit): 5,610 mg/kg<br>Method: OECD Test Guideline 402<br>Remarks: The test was conducted equivalent or similar to guideline |

**3,7-Dimethyl 2,6-octadienal:**

| | | |
|---|---|---|
| Acute oral toxicity | : | LD50 (Rat, female): 4,895 mg/kg |
| Acute inhalation toxicity | : | LC50 (Rat): > 0.68 mg/l<br>Exposure time: 7 h<br>Test atmosphere: vapor |
| Acute dermal toxicity | : | LD50 (Rabbit): 2,250 mg/kg |

**Skin corrosion/irritation**

Not classified based on available information.

**Components:**

**Praziquantel:**

| | | |
|---|---|---|
| Species | : | Rabbit |
| Method | : | Draize Test |
| Remarks | : | slight irritation |

**Dimethyl octadienol:**

| | | |
|---|---|---|
| Species | : | Rabbit |
| Method | : | OECD Test Guideline 404 |
| Result | : | Skin irritation |
| Remarks | : | The test was conducted according to guideline |

**3,7-Dimethyl 2,6-octadienal:**

| | | |
|---|---|---|
| Species | : | Rabbit |
| Result | : | Skin irritation |

**Serious eye damage/eye irritation**

Not classified based on available information.

**Components:**

**Starch:**

| | | |
|---|---|---|
| Species | : | Rabbit |
| Result | : | No eye irritation |

**Praziquantel:**

| | | |
|---|---|---|
| Species | : | Rabbit |
| Result | : | Mild eye irritation |
| Method | : | Draize Test |

**Dimethyl octadienol:**

| | | |
|---|---|---|
| Species | : | Rabbit |
| Result | : | Irritation to eyes, reversing within 21 days |
| Method | : | OECD Test Guideline 405 |
| Remarks | : | The test was conducted equivalent or similar to guideline |

**3,7-Dimethyl 2,6-octadienal:**

| | | |
|---|---|---|
| Species | : | Rabbit |
| Result | : | Irritation to eyes, reversing within 21 days |

**Respiratory or skin sensitization**

**Skin sensitization**

May cause an allergic skin reaction.

**Respiratory sensitization**

Not classified based on available information.

**Components:**

**Starch:**

| | | |
|---|---|---|
| Test Type | : | Maximization Test |
| Routes of exposure | : | Skin contact |
| Species | : | Guinea pig |
| Result | : | negative |

**Praziquantel:**

| | | |
|---|---|---|
| Test Type | : | Maximization Test |
| Routes of exposure | : | Dermal |
| Species | : | Guinea pig |
| Result | : | Not a skin sensitizer. |

**Dimethyl octadienol:**

| | | |
|---|---|---|
| Test Type | : | Local lymph node assay (LLNA) |
| Routes of exposure | : | Skin contact |
| Species | : | Mouse |
| Method | : | OECD Test Guideline 429 |
| Result | : | positive |
| Remarks | : | The test was conducted according to guideline |
| Assessment | : | Probability or evidence of low to moderate skin sensitization rate in humans |

**3,7-Dimethyl 2,6-octadienal:**

| | | |
|---|---|---|
| Test Type | : | Human repeat insult patch test (HRIPT) |
| Routes of exposure | : | Skin contact |
| Result | : | positive |
| Assessment | : | Probability or evidence of skin sensitization in humans |

**Germ cell mutagenicity**
Not classified based on available information.

**Components:**

**Starch:**

| | | |
|---|---|---|
| Genotoxicity in vitro | : | Test Type: Bacterial reverse mutation assay (AMES)<br>Result: negative |

**Praziquantel:**

| | | |
|---|---|---|
| Genotoxicity in vitro | : | Test Type: Bacterial reverse mutation assay (AMES)<br>Result: negative<br><br>Test Type: Chromosomal aberration<br>Test system: Chinese hamster cells<br>Result: negative |
| Genotoxicity in vivo | : | Test Type: Micronucleus test<br>Species: Rat<br>Result: negative |

**Dimethyl octadienol:**

| | | |
|---|---|---|
| Genotoxicity in vitro | : | Test Type: Bacterial reverse mutation assay (AMES)<br>Method: OECD Test Guideline 471<br>Result: negative<br>Remarks: The test was conducted equivalent or similar to guideline<br><br>Test Type: In vitro mammalian cell gene mutation test<br>Method: OECD Test Guideline 476<br>Result: negative<br>Remarks: The test was conducted equivalent or similar to guideline<br><br>Test Type: Chromosome aberration test in vitro<br>Method: OECD Test Guideline 473<br>Result: negative<br>Remarks: The test was conducted equivalent or similar to guideline |
| Genotoxicity in vivo | : | Test Type: Mammalian erythrocyte micronucleus test (in vivo cytogenetic assay)<br>Species: Mouse<br>Application Route: Ingestion<br>Method: OECD Test Guideline 474<br>Result: negative<br>Remarks: The test was conducted according to guideline |

**3,7-Dimethyl 2,6-octadienal:**

| | | |
|---|---|---|
| Genotoxicity in vitro | : | Test Type: Bacterial reverse mutation assay (AMES)<br>Result: negative |

| | | |
|---|---|---|
| | | Test Type: In vitro mammalian cell gene mutation test<br>Method: OECD Test Guideline 476<br>Result: negative<br><br>Test Type: Chromosome aberration test in vitro<br>Result: negative<br><br>Test Type: In vitro sister chromatid exchange assay in mammalian cells<br>Result: positive |
| Genotoxicity in vivo | : | Test Type: Mammalian erythrocyte micronucleus test (in vivo cytogenetic assay)<br>Species: Mouse<br>Application Route: Ingestion<br>Result: negative |

**Carcinogenicity**

Not classified based on available information.

**Components:**

**Praziquantel:**

| | | |
|---|---|---|
| Species | : | Hamster |
| Application Route | : | Oral |
| Exposure time | : | 80 weeks |
| NOAEL | : | 100 mg/kg body weight |
| Result | : | negative |
| Remarks | : | No significant adverse effects were reported |

| | | |
|---|---|---|
| Species | : | Rat |
| Application Route | : | Oral |
| Exposure time | : | 104 weeks |
| NOAEL | : | 250 mg/kg body weight |
| Result | : | negative |
| Remarks | : | No significant adverse effects were reported |

**3,7-Dimethyl 2,6-octadienal:**

| | | |
|---|---|---|
| Species | : | Mouse |
| Application Route | : | Ingestion |
| Exposure time | : | 104 - 105 weeks |
| Result | : | negative |

**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 based on available information.

**Components:**

**Praziquantel:**

| | | |
|---|---|---|
| Effects on fertility | : | Test Type: Fertility<br>Species: Rat<br>Remarks: No significant adverse effects were reported<br><br>Test Type: Fertility<br>Species: Mouse<br>Remarks: No significant adverse effects were reported |
| Effects on fetal development | : | Test Type: Development<br>Species: Rat<br>Remarks: No significant adverse effects were reported<br><br>Test Type: Development<br>Species: Mouse<br>Remarks: No significant adverse effects were reported |

**Dimethyl octadienol:**

| | | |
|---|---|---|
| Effects on fetal development | : | Test Type: Embryo-fetal development<br>Species: Rat<br>Application Route: Ingestion<br>Result: negative<br>Remarks: No test guideline followed |

**3,7-Dimethyl 2,6-octadienal:**

| | | |
|---|---|---|
| Effects on fertility | : | Test Type: One-generation reproduction toxicity study<br>Species: Rat<br>Application Route: Ingestion<br>Method: OECD Test Guideline 443<br>Result: negative |
| Effects on fetal development | : | Test Type: One-generation reproduction toxicity study<br>Species: Rat<br>Application Route: Ingestion<br>Method: OECD Test Guideline 443<br>Result: negative |

**STOT-single exposure**

Not classified based on available information.

**STOT-repeated exposure**

Not classified based on available information.

**Repeated dose toxicity**

**Components:**

**Starch:**

| | | |
|---|---|---|
| Species | : | Rat |
| NOAEL | : | >= 2,000 mg/kg |
| Application Route | : | Skin contact |
| Exposure time | : | 28 Days |
| Method | : | OECD Test Guideline 410 |

**Praziquantel:**

| | | |
|---|---|---|
| Species | : | Rat |
| NOAEL | : | 1,000 mg/kg |
| Application Route | : | Oral |
| Remarks | : | No significant adverse effects were reported |

| | | |
|---|---|---|
| Species | : | Dog |
| NOAEL | : | 60 mg/kg |
| LOAEL | : | 180 mg/kg |
| Application Route | : | Oral |
| Target Organs | : | Gastrointestinal tract |
| Remarks | : | No significant adverse effects were reported |

**Dimethyl octadienol:**

| | | |
|---|---|---|
| Species | : | Rat, male |
| NOAEL | : | >= 497.9 mg/kg |
| Application Route | : | Ingestion |
| Exposure time | : | 96 Days |
| Method | : | OECD Test Guideline 408 |
| Remarks | : | The test was conducted according to guideline |

| | | |
|---|---|---|
| Species | : | Rat |
| NOAEL | : | 250 mg/kg |
| Application Route | : | Skin contact |
| Exposure time | : | 91 Days |
| Method | : | OECD Test Guideline 411 |
| Remarks | : | The test was conducted equivalent or similar to guideline |

**3,7-Dimethyl 2,6-octadienal:**

| | | |
|---|---|---|
| Species | : | Rat, female |
| LOAEL | : | 335 mg/kg |
| Application Route | : | Ingestion |
| Exposure time | : | 14 Weeks |

**Aspiration toxicity**

Not classified based on available information.

**Experience with human exposure**

**Components:**

**Praziquantel:**

| | | |
|---|---|---|
| Inhalation | : | Symptoms: Headache, Tiredness, Dizziness, Gastrointestinal discomfort, decrease body temperature, Allergic reactions |

## SECTION 12. ECOLOGICAL INFORMATION

**Ecotoxicity**

**Components:**

**Praziquantel:**

| | | |
|---|---|---|
| Toxicity to fish | : | LC50 (Carassius auratus (goldfish)): 29.2 mg/l<br>Exposure time: 96 hrs<br>Method: OECD Test Guideline 203<br><br>LC50 (Danio rerio (zebra fish)): 31.6 mg/l<br>Exposure time: 96 hrs<br>Method: OECD Test Guideline 203 |
| Toxicity to daphnia and other aquatic invertebrates | : | EC50 (Daphnia magna (Water flea)): 35 mg/l<br>Exposure time: 48 h<br>Method: OECD Test Guideline 202 |
| Toxicity to microorganisms | : | EC50 (activated sludge): > 1,000 mg/l<br>Exposure time: 3 h<br>Test Type: Respiration inhibition of activated sludge<br>Method: OECD Test Guideline 209 |

**Dimethyl octadienol:**

| | | |
|---|---|---|
| Toxicity to fish | : | LC50 (Oncorhynchus mykiss (rainbow trout)): 27.8 mg/l<br>Exposure time: 96 h<br>Method: OECD Test Guideline 203<br>Remarks: The test was conducted according to guideline |
| Toxicity to daphnia and other aquatic invertebrates | : | EC50 (Daphnia magna (Water flea)): 59 mg/l<br>Exposure time: 48 h<br>Method: OECD Test Guideline 202<br>Remarks: The test was conducted according to guideline |
| Toxicity to algae/aquatic plants | : | ErC50 (Desmodesmus subspicatus (green algae)): 156.7 mg/l<br>Exposure time: 96 h<br><br>EC10 (Desmodesmus subspicatus (green algae)): 54.3 mg/l<br>Exposure time: 96 h |
| Toxicity to microorganisms | : | EC10 (activated sludge): > 100 mg/l<br>Exposure time: 3 h<br>Method: OECD Test Guideline 209<br>Remarks: The test was conducted according to guideline |

**3,7-Dimethyl 2,6-octadienal:**

| | | |
|---|---|---|
| Toxicity to fish | : | LC50 (Leuciscus idus (Golden orfe)): 6.78 mg/l<br>Exposure time: 96 h<br>Method: DIN 38412 |
| Toxicity to daphnia and other aquatic invertebrates | : | EC50 (Daphnia magna (Water flea)): 6.8 mg/l<br>Exposure time: 48 h |
| Toxicity to algae/aquatic plants | : | ErC50 (Desmodesmus subspicatus (green algae)): 103.8 mg/l<br>Exposure time: 72 h<br><br>EC10 (Desmodesmus subspicatus (green algae)): 3 mg/l<br>Exposure time: 72 h |
| Toxicity to microorganisms | : | EC50 (activated sludge): 160 mg/l<br>Exposure time: 30 min<br>Method: OECD Test Guideline 209 |

**Persistence and degradability**

**Components:**

**Dimethyl octadienol:**

| | | |
|---|---|---|
| Biodegradability | : | Result: Readily biodegradable.<br>Biodegradation: 64.2 %<br>Exposure time: 28 d<br>Method: OECD Test Guideline 301D<br>Remarks: The test was conducted according to guideline |

**3,7-Dimethyl 2,6-octadienal:**

| | | |
|---|---|---|
| Biodegradability | : | Result: Readily biodegradable.<br>Biodegradation: > 90 %<br>Exposure time: 28 d<br>Method: Directive 67/548/EEC Annex V, C.4.D. |

**Bioaccumulative potential**

**Components:**

**Praziquantel:**

| | | |
|---|---|---|
| Partition coefficient: n-octanol/water | : | log Pow: 2.012<br>pH: 7 |

**Dimethyl octadienol:**

| | | |
|---|---|---|
| Partition coefficient: n-octanol/water | : | log Pow: 2.84<br>Method: OECD Test Guideline 107<br>Remarks: The test was conducted equivalent or similar to guideline |

**3,7-Dimethyl 2,6-octadienal:**

| | | |
|---|---|---|
| Partition coefficient: n-octanol/water | : | log Pow: 2.76 |

**Mobility in soil**

No data available

**Other adverse effects**

No data available

## SECTION 13. DISPOSAL CONSIDERATIONS

**Disposal methods**

| | | |
|---|---|---|
| Waste from residues | : | Dispose of in accordance with local regulations.<br>Do not dispose of waste into sewer. |
| Contaminated packaging | : | Empty containers should be taken to an approved waste handling site for recycling or disposal.<br>If not otherwise specified: Dispose of as unused product. |

## SECTION 14. TRANSPORT INFORMATION

**International Regulations**

**UNRTDG**
Not regulated as a dangerous good

**IATA-DGR**
Not regulated as a dangerous good

**IMDG-Code**
Not regulated as a dangerous good

**Transport in bulk according to IMO instruments**

Not applicable for product as supplied.

**Domestic regulation**

**49 CFR**
Not regulated as a dangerous good

**Special precautions for user**

Not applicable

## SECTION 15. REGULATORY INFORMATION

**CERCLA Reportable Quantity**

This material does not contain any components with a CERCLA RQ.

**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** : Combustible dust

Respiratory or skin sensitization

**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.

**US State Regulations**

**Pennsylvania Right To Know**

| | |
|---|---|
| Starch | 9005-25-8 |
| Soybean proteins | 9010-10-0 |
| Praziquantel | 55268-74-1 |

**California Permissible Exposure Limits for Chemical Contaminants**

| | |
|---|---|
| Starch | 9005-25-8 |

**The ingredients of this product are reported in the following inventories:**

AICS : not determined

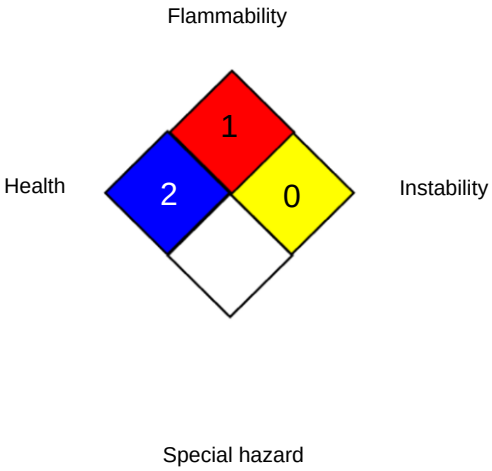
DSL : not determined

IECSC : not determined

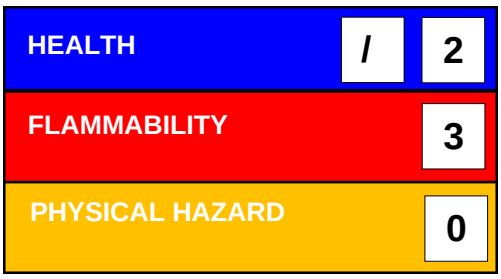
## SECTION 16. OTHER INFORMATION

**Further information**

**NFPA 704:**




**HMIS® IV:**




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 Z-1 : USA. Occupational Exposure Limits (OSHA) - Table Z-1 Lim-

| | | |
|---|---|---|
| | | its for Air Contaminants |
| ACGIH / TWA | : | 8-hour, time-weighted average |
| NIOSH REL / TWA | : | Time-weighted average concentration for up to a 10-hour workday during a 40-hour workweek |
| OSHA Z-1 / TWA | : | 8-hour time weighted average |

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 Standardisation; 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 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 Organisation 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, Authorisation 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

| | | |
|---|---|---|
| Sources of key data used to compile the Material Safety Data Sheet | : | Internal technical data, data from raw material SDSs, OECD eChem Portal search results and European Chemicals Agency, http://echa.europa.eu/ |
| Revision Date | : | 06/18/2025 |

Items where changes have been made to the previous version are highlighted in the body of this document by two vertical lines.

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 is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and shall not be considered a warranty or quality specification of any type. The information provided relates only to the specific material identified at the top of this SDS and may not be valid when the

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