

# SAFETY DATA SHEET

## ROVRAL® 50 WP



Version	Revision Date:	SDS Number:	Date of last issue: -
1.0	2024/10/28	50000150	Date of first issue: 2024/10/28

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### 1. PRODUCT AND COMPANY IDENTIFICATION

Product name : ROVRAL® 50 WP

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

Recommended use : Can be used as fungicide only.

Restrictions on use : Use as recommended by the label.  
For professional users only.

#### Manufacturer or supplier's details

Company : FMC Corporation

Address : 2929 Walnut Street  
Philadelphia PA 19104  
USA

Telephone : 1 215 / 299-6000 (Corporate office in USA)

E-mail address : SDS-Info@fmc.com

Emergency telephone : For leak, fire, spill or accident emergencies, call:  
001-803-017-9114 (CHEMTREC)  
1 703 / 741-5970 (CHEMTREC - International)

Medical emergency:  
0800 140 1447

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### 2. HAZARDS IDENTIFICATION

#### GHS Classification

Carcinogenicity : Category 2

Short-term (acute) aquatic hazard : Category 1

Long-term (chronic) aquatic hazard : Category 1

#### GHS label elements

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Hazard pictograms

:



Signal Word

: WARNING

Hazard Statements

: H351 Suspected of causing cancer.  
H410 Very toxic to aquatic life with long lasting effects.

Precautionary Statements

: **Prevention:**  
P201 Obtain special instructions before use.  
P202 Do not handle until all safety precautions have been read and understood.  
P273 Avoid release to the environment.  
P280 Wear protective gloves/ protective clothing/ eye protection/ face protection.  
**Response:**  
P308 + P313 IF exposed or concerned: Get medical advice/ attention.  
P391 Collect spillage.  
**Storage:**  
P405 Store locked up.  
**Disposal:**  
P501 Dispose of contents/ container to an approved waste disposal plant.

### Other hazards which do not result in classification

None known.

## 3. COMPOSITION/INFORMATION ON INGREDIENTS

Substance / Mixture : Mixture

### Components

Chemical name	CAS-No.	Concentration (% w/w)
iprodione (ISO)	36734-19-7	>= 30 -< 60
kaolin	1332-58-7	>= 30 -< 60
Alcohols, C12-15-ethoxylated	68131-39-5	>= 1 -< 2,5
Silicic acid, aluminum sodium salt	1344-00-9	< 10

## 4. FIRST AID MEASURES

General advice : Move out of dangerous area.  
Show this material safety data sheet to the doctor in attendance.  
Do not leave the victim unattended.

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| If inhaled  | : If unconscious, place in recovery position and seek medical advice.<br>If symptoms persist, call a physician.  |
| In case of skin contact                                     | : Wash off with soap and water.<br>If symptoms persist, call a physician.<br>Wash contaminated clothing before re-use.   |
| In case of eye contact                                      | : Flush eyes with water as a precaution.<br>Remove contact lenses.<br>Protect unharmed eye.<br>Keep eye wide open while rinsing.<br>If eye irritation persists, consult a specialist.  |
| If swallowed  | : Induce vomiting immediately and call a physician.<br>Keep respiratory tract clear.<br>Do not give milk or alcoholic beverages.<br>Never give anything by mouth to an unconscious person.<br>If symptoms persist, call a physician.<br>Take victim immediately to hospital. |
| Most important symptoms and effects, both acute and delayed | : Suspected of causing cancer.   |
| Protection of first-aiders                                  | : First Aid responders should pay attention to self-protection and use the recommended protective clothing<br>Avoid inhalation, ingestion and contact with skin and eyes.<br>If potential for exposure exists refer to Section 8 for specific personal protective equipment. |
| Notes to physician  | : Treat symptomatically.   |

### 5. FIRE-FIGHTING MEASURES

- |                                       |  |
|---------------------------------------|--|
| Suitable extinguishing media          | : Dry chemical, CO2, water spray or regular foam.  |
| Unsuitable extinguishing media        | : High volume water jet  |
| Specific hazards during fire fighting | : Do not allow run-off from fire fighting to enter drains or water courses.  |
| Hazardous combustion products         | : Fire may produce irritating, corrosive and/or toxic gases.<br>Nitrogen oxides (NOx)<br>Carbon oxides<br>Chlorine compounds<br>Hydrogen cyanide<br>Hydrogen chloride<br>Sulfur oxides |
| Specific extinguishing methods        | : Use a water spray to cool fully closed containers.<br>Remove undamaged containers from fire area if it is safe to do   |

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so.

Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.

Collect contaminated fire extinguishing water separately. This must not be discharged into drains.

Fire residues and contaminated fire extinguishing water must be disposed of in accordance with local regulations.

Special protective equipment : Firefighters should wear protective clothing and self-contained breathing apparatus.

### 6. ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures : If it can be safely done, stop the leak.  
Do not touch or walk through the spilled material.  
Use personal protective equipment.  
Evacuate personnel to safe areas.  
Avoid dust formation.  
Avoid breathing dust.  
Ensure adequate ventilation.  
Pick up and arrange disposal without creating dust.  
Never return spills in original containers for re-use.  
For disposal considerations see section 13.

Environmental precautions : Prevent product from entering drains.  
Prevent further leakage or spillage if safe to do so.  
If the product contaminates rivers and lakes or drains inform respective authorities.

Methods and materials for containment and cleaning up : Pick up and transfer to properly labeled containers without creating dust.  
Move it to a safe place.

### 7. HANDLING AND STORAGE

Advice on protection against fire and explosion : Avoid dust formation.  
Provide appropriate exhaust ventilation at places where dust is formed.

Advice on safe handling : Avoid formation of respirable particles.  
Do not breathe vapors/dust.  
Avoid exposure - obtain special instructions before use.  
Avoid contact with skin and eyes.  
For personal protection see section 8.  
Smoking, eating and drinking should be prohibited in the application area.  
Dispose of rinse water in accordance with local and national regulations.

Conditions for safe storage : Keep container tightly closed in a dry and well-ventilated place.  
Containers which are opened must be carefully resealed and

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kept upright to prevent leakage.  
Observe label precautions.  
Electrical installations / working materials must comply with the technological safety standards.

Further information on storage stability : Keep in a dry place.  
No decomposition if stored and applied as directed.

### 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

#### Ingredients with workplace control parameters

Components	CAS-No.	Value type (Form of exposure)	Control parameters / Permissible concentration	Basis
kaolin	1332-58-7	NAB (Respirable)	2 mg/m3	ID OEL
		Further information: Not classified as carcinogenic to humans. Not enough data to classify these materials as carcinogenic to humans or animals		
		TWA (Respirable particulate matter)	2 mg/m3	ACGIH
Silicic acid, aluminum sodium salt	1344-00-9	NAB (Respirable particulate matter)	1 mg/m3 (Aluminum)	ID OEL
		Further information: Not classified as carcinogenic to humans. Not enough data to classify these materials as carcinogenic to humans or animals		
		TWA (Respirable particulate matter)	1 mg/m3 (Aluminum)	ACGIH

#### Personal protective equipment

Respiratory protection : Use respiratory protection unless adequate local exhaust ventilation is provided or exposure assessment demonstrates that exposures are within recommended exposure guidelines.

Filter type : Particulates type

#### Hand protection

Material : Wear chemical resistant gloves, such as barrier laminate, butyl rubber or nitrile rubber.

Remarks : The suitability for a specific workplace should be discussed with the producers of the protective gloves.

Eye protection : Eye wash bottle with pure water  
Tightly fitting safety goggles

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| Skin and body protection | : Dust impervious protective suit<br>Choose body protection according to the amount and concentration of the dangerous substance at the work place.   |
| Protective measures      | : Plan first aid action before beginning work with this product.<br>Always have on hand a first-aid kit, together with proper instructions.<br>Ensure that eye flushing systems and safety showers are located close to the working place.<br>Wear suitable protective equipment.<br>In the context of professional plant protection use as recommended, the end user must refer to the label and the instructions for use. |
| Hygiene measures         | : Avoid contact with skin, eyes and clothing.<br>Do not breathe dust.<br>When using do not eat or drink.<br>When using do not smoke.<br>Wash hands before breaks and at the end of workday.   |

### 9. PHYSICAL AND CHEMICAL PROPERTIES

- |   |                          |
|---|--------------------------|
| Appearance                              | : Powder                 |
| Color                                   | : gray                   |
| Odor                                    | : slight                 |
| Odor Threshold                          | : No data available      |
| pH                                      | : 5 - 6<br>(1% emulsion) |
| Melting point/ range                    | : No data available      |
| Initial boiling point and boiling range | : No data available      |
| Flash point                             | : Not applicable         |
| Evaporation rate                        | : Not applicable         |
| Flammability (solid, gas)               | : Will not burn          |
| Self-ignition                           | : No data available      |
| Upper explosion limit / Upper           | : No data available      |

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flammability limit

Lower explosion limit / Lower flammability limit : No data available

Vapor pressure : No data available

Relative vapor density : No data available

Relative density : No data available

Density : 1,024 g/cm<sup>3</sup>

Bulk density : 224 - 368 kg/m<sup>3</sup>

Solubility(ies)

Water solubility : dispersible

Solubility in other solvents : No data available

Partition coefficient: n-octanol/water : No data available

Autoignition temperature : No data available

Decomposition temperature : No data available

Viscosity

Viscosity, dynamic : 68 mPa.s ( 20 °C)

Viscosity, kinematic : No data available

Explosive properties : Not explosive

Oxidizing properties : The substance or mixture is not classified as oxidizing.

Surface tension : Not applicable

Molecular weight : Not applicable

Particle size : No data available

### 10. STABILITY AND REACTIVITY

Reactivity : No decomposition if stored and applied as directed.

Chemical stability : No decomposition if stored and applied as directed.

Possibility of hazardous reactions : Dust may form explosive mixture in air.  
No decomposition if stored and applied as directed.  
Dust may form explosive mixture in air.

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Conditions to avoid	: Heat, flames and sparks. Avoid extreme temperatures. Avoid dust formation.
Incompatible materials	: Avoid strong acids, bases, and oxidizers.
Hazardous decomposition products	: Nitrogen oxides (NOx) Sulfur oxides Carbon oxides Halogenated compounds

### 11. TOXICOLOGICAL INFORMATION

#### Acute toxicity

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

#### Product:

Acute oral toxicity	: LD50 (Rat, female): > 2.000 mg/kg Method: OECD Test Guideline 425 Symptoms: Fatality, hypoactivity Assessment: The component/mixture is minimally toxic after single ingestion.  LD50 (Rat, male and female): > 2.000 mg/kg Method: OECD Test Guideline 401
Acute inhalation toxicity	: LC50 (Rat, male and female): > 5,18 mg/l Exposure time: 4 h Test atmosphere: dust/mist Method: OECD Test Guideline 403
Acute dermal toxicity	: LD50 (Rat, male and female): > 2.000 mg/kg Method: OECD Test Guideline 402 GLP: yes Assessment: The component/mixture is minimally toxic after single contact with skin.

#### Components:

##### **iprodione (ISO):**

Acute oral toxicity	: LD50 (Rat, male and female): > 2.000 mg/kg Assessment: The component/mixture is minimally toxic after single ingestion.  LD50 (Rat, male and female): 3.100 - 4.300 mg/kg Symptoms: ataxia, Diarrhea, Nose bleeding
Acute inhalation toxicity	: LC50 (Rat): > 3,29 mg/l Exposure time: 4 h Test atmosphere: dust/mist



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Symptoms: Breathing difficulties  
Assessment: The component/mixture is minimally toxic after short term inhalation.  
Remarks: no mortality

Acute dermal toxicity : LD50 (Rat, male and female): > 2.000 mg/kg  
Method: EPA OPP 81-2  
Symptoms: Irritation  
GLP: yes  
Assessment: The component/mixture is minimally toxic after single contact with skin.

### **kaolin:**

Acute oral toxicity : LD50 (Rat): > 5.000 mg/kg  
Method: OECD Test Guideline 401  
  
LD50: > 2.000 mg/kg  
Method: OECD Test Guideline 420  
Assessment: The substance or mixture has no acute oral toxicity

Acute inhalation toxicity : LC50 (Rat): 36 mg/l  
Exposure time: 1 h  
Test atmosphere: dust/mist

Acute dermal toxicity : LD50 (Rat): > 5.000 mg/kg  
  
LD50: > 2.000 mg/kg  
Method: OECD Test Guideline 402  
Assessment: The substance or mixture has no acute dermal toxicity

### **Alcohols, C12-15-ethoxylated:**

Acute oral toxicity : Acute toxicity estimate: 500 mg/kg  
Method: Expert judgment

Acute inhalation toxicity : LC50 (Rat, male and female): > 1,6 mg/l  
Exposure time: 4 h  
Test atmosphere: dust/mist  
Method: OECD Test Guideline 403  
Assessment: The substance or mixture has no acute inhalation toxicity  
Remarks: Based on data from similar materials

Acute dermal toxicity : LD50 (Rat, male and female): > 2.000 mg/kg  
Method: OECD Test Guideline 402  
Assessment: The substance or mixture has no acute dermal toxicity  
Remarks: Based on data from similar materials

### **Silicic acid, aluminum sodium salt:**

Acute oral toxicity : LD50 (Rat, male and female): 10.000 mg/kg

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Method: OECD Test Guideline 401  
Remarks: Based on data from similar materials

Acute inhalation toxicity : LC0 (Rat, male and female): > 2,08 mg/l  
Exposure time: 4 h  
Test atmosphere: dust/mist  
Method: OECD Test Guideline 403  
Remarks: Based on data from similar materials  
no mortality

Acute dermal toxicity : LD50 (Rabbit): > 5.000 mg/kg  
Method: OECD Test Guideline 402

### Skin corrosion/irritation

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

#### Product:

Species : Rabbit  
Assessment : No skin irritation  
Method : OECD Test Guideline 404  
GLP : yes

#### Components:

##### **iprodione (ISO):**

Species : Rabbit  
Assessment : Not classified as irritant  
Method : EPA OPP 81-5  
Result : No skin irritation  
GLP : yes

##### **kaolin:**

Method : OECD Test Guideline 404  
Result : No skin irritation

##### **Alcohols, C12-15-ethoxylated:**

Species : Rabbit  
Method : OECD Test Guideline 404  
Result : No skin irritation  
Remarks : Based on data from similar materials

##### **Silicic acid, aluminum sodium salt:**

Species : Rabbit  
Result : No skin irritation

### Serious eye damage/eye irritation

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

#### Product:

Species : Rabbit

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Assessment	:	No eye irritation
Method	:	OECD Test Guideline 405
GLP	:	yes

### **Components:**

#### **iprodione (ISO):**

Species	:	Rabbit
Result	:	slight irritation
Assessment	:	Not classified as irritant
Method	:	EPA OPP 81-4
GLP	:	yes

#### **kaolin:**

Result	:	No eye irritation
Method	:	OECD Test Guideline 405

#### **Alcohols, C12-15-ethoxylated:**

Result	:	Irreversible effects on the eye
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#### **Silicic acid, aluminum sodium salt:**

Species	:	Rabbit
Result	:	No eye irritation

### **Respiratory or skin sensitization**

#### **Skin sensitization**

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

#### **Respiratory sensitization**

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

### **Product:**

Test Type	:	Local lymph node assay (LLNA)
Species	:	mice
Method	:	OECD Test Guideline 429
Result	:	Not a skin sensitizer.

### **Components:**

#### **iprodione (ISO):**

Test Type	:	Buehler Test
Species	:	Guinea pig
Assessment	:	Not a skin sensitizer.
Method	:	EPA OPP 81-6
Result	:	Does not cause skin sensitization.
GLP	:	yes

#### **kaolin:**

Method	:	OECD Test Guideline 429
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Result : Does not cause skin sensitization.

### Alcohols, C12-15-ethoxylated:

Test Type	: Maximization Test
Routes of exposure	: Intradermal
Species	: Guinea pig
Method	: OECD Test Guideline 406
Result	: Not a skin sensitizer.
Remarks	: Based on data from similar materials

### Germ cell mutagenicity

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

#### Product:

Genotoxicity in vitro	: Test Type: Ames test Metabolic activation: with and without metabolic activation Method: OECD Test Guideline 471 Result: negative
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Genotoxicity in vivo	: Method: OECD Test Guideline 474 Result: negative
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#### Components:

##### iprodione (ISO):

Genotoxicity in vitro	: Test Type: Ames test Metabolic activation: with and without metabolic activation Result: negative
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Test Type: in vitro DNA damage and/or repair study  
Test system: Bacillus subtilis  
Metabolic activation: with and without metabolic activation  
Result: positive

Test Type: Chromosome aberration test in vitro  
Test system: Chinese hamster ovary cells  
Metabolic activation: with and without metabolic activation  
Result: negative

Test Type: sister chromatid exchange assay  
Test system: Chinese hamster ovary cells  
Metabolic activation: with and without metabolic activation  
Result: negative

Genotoxicity in vivo	: Test Type: Micronucleus test Species: Mouse Result: negative
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Germ cell mutagenicity - Assessment	: Weight of evidence does not support classification as a germ cell mutagen.
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##### kaolin:

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Genotoxicity in vitro : Test Type: Ames test  
Method: OECD Test Guideline 471  
Result: negative

Genotoxicity in vivo : Remarks: No data available

### **Alcohols, C12-15-ethoxylated:**

Genotoxicity in vitro : Test Type: Chromosome aberration test in vitro  
Method: OECD Test Guideline 473  
Result: negative  
Remarks: Based on data from similar materials

Test Type: Ames test  
Method: OECD Test Guideline 471  
Result: negative  
Remarks: Based on data from similar materials

Genotoxicity in vivo : Test Type: Micronucleus test  
Species: Mouse (male and female)  
Application Route: Intraperitoneal injection  
Method: OECD Test Guideline 474  
Result: negative  
Remarks: Based on data from similar materials

Test Type: Bone marrow chromosome aberration.  
Species: Rat (male and female)  
Method: OECD Test Guideline 475  
Result: negative  
Remarks: Based on data from similar materials

### **Silicic acid, aluminum sodium salt:**

Genotoxicity in vitro : Test Type: In vitro mammalian cell gene mutation test  
Method: OECD Test Guideline 476  
Result: negative  
Remarks: Based on data from similar materials

Genotoxicity in vivo : Test Type: chromosome aberration assay  
Species: Rat (male)  
Application Route: Oral  
Result: negative  
Remarks: Based on data from similar materials

### **Carcinogenicity**

Suspected of causing cancer.

### **Components:**

#### **iprodione (ISO):**

Species : Rat, male  
Exposure time : 2 y  
: 6,1 mg/kg bw/day  
: 12,4 mg/kg bw/day

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Result : positive  
Symptoms : Testicular effects  
Target Organs : Adrenal gland, Testes

Species : Rat, female  
Exposure time : 2 y  
: 8,4 mg/kg bw/day  
: 16,5 mg/kg bw/day  
Target Organs : Adrenal gland

Carcinogenicity - Assessment : Limited evidence of carcinogenicity in animal studies

### Silicic acid, aluminum sodium salt:

Species : Rat, male and female  
Application Route : Oral  
Exposure time : 103 weeks  
Result : negative  
Remarks : Based on data from similar materials

### Reproductive toxicity

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

### Components:

#### iprodione (ISO):

Effects on fetal development : Species: Rabbit  
General Toxicity Maternal: NOAEL: 20 mg/kg bw/day  
Developmental Toxicity: NOAEL: 60 mg/kg bw/day  
Symptoms: Reduced body weight, Total Resorptions / resorption rate.

Species: Rat  
General Toxicity Maternal: NOAEL: 20 mg/kg bw/day  
Developmental Toxicity: NOAEL: 20 mg/kg bw/day  
Symptoms: Reduced body weight, Fetal mortality.  
Target Organs: Adrenal gland

Reproductive toxicity - Assessment : Weight of evidence does not support classification for reproductive toxicity

#### kaolin:

Effects on fertility : Remarks: No data available

Effects on fetal development : Remarks: No data available

#### Alcohols, C12-15-ethoxylated:

Effects on fertility : Test Type: Two-generation study  
Species: Rat, male and female  
Application Route: Dermal  
General Toxicity Parent: NOAEL: 250 mg/kg body weight

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Fertility: NOAEC Mating/Fertility: 250 mg/kg body weight  
Method: OECD Test Guideline 416  
Result: negative  
Remarks: Based on data from similar materials

Effects on fetal development : Test Type: reproductive and developmental toxicity study  
Species: Rat  
Application Route: Dermal  
General Toxicity Maternal: NOEL: 100 mg/kg body weight  
Embryo-fetal toxicity.: NOAEL: > 250 mg/kg body weight  
Method: OECD Test Guideline 416  
Result: negative  
Remarks: Based on data from similar materials

### STOT-single exposure

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

#### Components:

##### **iprodione (ISO):**

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

##### **kaolin:**

Remarks : No significant adverse effects were reported

### STOT-repeated exposure

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

#### Components:

##### **iprodione (ISO):**

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

##### **kaolin:**

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

### Repeated dose toxicity

#### Components:

##### **iprodione (ISO):**

Species : Rat, male  
NOAEL : 78 mg/kg  
LOAEL : 151 mg/kg  
Application Route : Oral  
Exposure time : 90 d  
Target Organs : Reproductive organs

Species : Rat, female

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NOAEL	: 89 mg/kg
LOAEL	: 189 mg/kg
Application Route	: Oral
Exposure time	: 90 d
Target Organs	: Reproductive organs

Species	: Rat, male
NOAEL	: 28 mg/kg
LOAEL	: 207 mg/kg
Application Route	: Inhalation
Exposure time	: 28 d
Target Organs	: Adrenal gland

Species	: Rat, female
NOAEL	: 43 mg/kg
LOAEL	: 241 mg/kg
Application Route	: Inhalation
Exposure time	: 28 d
Target Organs	: Adrenal gland

### **kaolin:**

Remarks	: No data available
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### **Alcohols, C12-15-ethoxylated:**

Species	: Rat, male and female
NOAEL	: 500 mg/kg
Application Route	: Oral
Exposure time	: 90d
Method	: OECD Test Guideline 408
Remarks	: Based on data from similar materials

### **Silicic acid, aluminum sodium salt:**

Species	: Rat, male and female
NOAEL	: 2.500 - 3.200 mg/kg
Application Route	: Oral
Exposure time	: 2 years
Remarks	: Based on data from similar materials

Species	: Rat, male and female
NOAEL	: 0,0013 mg/l
Application Route	: Inhalation
Exposure time	: 13 weeks
Remarks	: Based on data from similar materials

### **Aspiration toxicity**

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

### **Components:**

#### **iprodione (ISO):**

The substance does not have properties associated with aspiration hazard potential.



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### Further information

#### Product:

Remarks : No data available

## 12. ECOLOGICAL INFORMATION

### Ecotoxicity

#### Components:

##### **iprodione (ISO):**

Toxicity to fish	: LC50 (Oncorhynchus mykiss (rainbow trout)): 4,1 mg/l Exposure time: 96 h
Toxicity to daphnia and other aquatic invertebrates	: EC50 (Daphnia magna (Water flea)): 0,25 mg/l Exposure time: 48 h
Toxicity to algae/aquatic plants	: EC50 (Scenedesmus subspicatus): > 0,5 mg/l Exposure time: 72 h
M-Factor (Acute aquatic toxicity)	: 1
Toxicity to fish (Chronic toxicity)	: NOEC (Fish): 0,26 mg/l Exposure time: 21 d
Toxicity to daphnia and other aquatic invertebrates (Chronic toxicity)	: NOEC (Daphnia magna (Water flea)): 0,17 mg/l Exposure time: 21 d
M-Factor (Chronic aquatic toxicity)	: 1
Toxicity to soil dwelling organisms	: LC50 (Eisenia fetida (earthworms)): > 1.000 mg/kg Exposure time: 14 d
Toxicity to terrestrial organisms	: LD50 (Colinus virginianus (Bobwhite quail)): > 2.000 mg/kg
	LD50 (Apis mellifera (bees)): > 250 µg/bee Exposure time: 48 h Remarks: Contact
	LD50 (Apis mellifera (bees)): > 25 µg/bee Exposure time: 48 h Remarks: Oral

##### **kaolin:**

Toxicity to fish	: LC50 (Oncorhynchus mykiss (rainbow trout)): > 100 mg/l Exposure time: 96 h
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Method: OECD Test Guideline 203

Toxicity to daphnia and other aquatic invertebrates : EC50 (Daphnia magna (Water flea)): > 1.000 mg/l  
Exposure time: 48 h  
Method: OECD Test Guideline 202

Toxicity to algae/aquatic plants : EC50 (Raphidocelis subcapitata (freshwater green alga)): > 100 mg/l  
Exposure time: 72 h  
Method: OECD Test Guideline 201

Toxicity to daphnia and other aquatic invertebrates (Chronic toxicity) : Remarks: No data available

Toxicity to microorganisms : Remarks: No data available

### Alcohols, C12-15-ethoxylated:

Toxicity to fish : LC50 (Danio rerio (zebra fish)): > 2 mg/l  
Exposure time: 96 h  
Remarks: Based on data from similar materials

Toxicity to daphnia and other aquatic invertebrates : EC50 (Daphnia magna (Water flea)): > 2 mg/l  
Exposure time: 48 h  
Method: OECD Test Guideline 202  
Remarks: Based on data from similar materials

Toxicity to algae/aquatic plants : EC50 (Pseudokirchneriella subcapitata (green algae)): > 2 mg/l  
Exposure time: 72 h  
Method: OECD Test Guideline 201  
Remarks: Based on data from similar materials

Toxicity to fish (Chronic toxicity) : NOEC (Pimephales promelas (fathead minnow)): 0,11 - 0,28 mg/l  
Exposure time: 30 d  
Remarks: Based on data from similar materials

Toxicity to daphnia and other aquatic invertebrates (Chronic toxicity) : NOEC (Daphnia magna (Water flea)): 1,75 mg/l  
End point: Immobilization  
Exposure time: 21 d  
Remarks: Based on data from similar materials

NOEC (Daphnia magna (Water flea)): 0,77 mg/l  
End point: reproduction  
Exposure time: 21 d  
Remarks: Based on data from similar materials

Toxicity to microorganisms : EC50 (Pseudomonas putida): > 10 g/l  
Exposure time: 16,9 h  
Remarks: Based on data from similar materials

Toxicity to soil dwelling or- : LC50 (Eisenia fetida (earthworms)): > 1.000 mg/kg

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### Silicic acid, aluminum sodium salt:

Toxicity to fish	:	LL50 (Danio rerio (zebra fish)): 10.000 mg/l Exposure time: 96 h Method: OECD Test Guideline 203
Toxicity to daphnia and other aquatic invertebrates	:	EL50 (Daphnia magna (Water flea)): 10.000 mg/l Exposure time: 48 h Method: OECD Test Guideline 202 Remarks: Based on data from similar materials
Toxicity to algae/aquatic plants	:	EL50 (Desmodesmus subspicatus (green algae)): 10.000 mg/l Exposure time: 72 h Method: OECD Test Guideline 201

### Persistence and degradability

#### Components:

##### iprodione (ISO):

Biodegradability	:	Result: Not readily biodegradable.
Stability in water	:	Degradation half life (DT50): 146 d pH: 5  Degradation half life (DT50): 0,2 d pH: 8

##### kaolin:

Biodegradability	:	Remarks: The methods for determining biodegradability are not applicable to inorganic substances.
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##### Alcohols, C12-15-ethoxylated:

Biodegradability	:	Result: Readily biodegradable. Method: OECD Test Guideline 301B Remarks: Based on data from similar materials
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### Silicic acid, aluminum sodium salt:

Biodegradability	:	Remarks: The methods for determining biodegradability are not applicable to inorganic substances.
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### Bioaccumulative potential

#### Components:

##### iprodione (ISO):

Bioaccumulation	:	Species: Lepomis macrochirus (Bluegill sunfish) Bioconcentration factor (BCF): 70 Remarks: Bioaccumulation is unlikely. See section 9 for octanol-water partition coefficient.
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Partition coefficient: n-octanol/water : log Pow: 3 (20 °C)  
pH: 7

### kaolin:

Bioaccumulation : Remarks: Bioaccumulation is unlikely.

Partition coefficient: n-octanol/water : Remarks: Not applicable

### Alcohols, C12-15-ethoxylated:

Bioaccumulation : Species: Pimephales promelas (fathead minnow)  
Bioconcentration factor (BCF): 237  
Exposure time: 24 d  
Remarks: Based on data from similar materials

Partition coefficient: n-octanol/water : log Pow: 4,91 - 6,78 (40 °C)

### Silicic acid, aluminum sodium salt:

Partition coefficient: n-octanol/water : Remarks: No data available

### Mobility in soil

#### Components:

#### iprodione (ISO):

Distribution among environmental compartments : Remarks: Low mobility in soil.

#### kaolin:

Distribution among environmental compartments : Remarks: Low mobility in soil.

### Other adverse effects

#### Product:

Additional ecological information : An environmental hazard cannot be excluded in the event of unprofessional handling or disposal.  
Very toxic to aquatic life with long lasting effects.

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## 13. DISPOSAL CONSIDERATIONS

### Disposal methods

Waste from residues : The product should not be allowed to enter drains, water courses or the soil.  
Do not contaminate ponds, waterways or ditches with chemical or used container.

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Send to a licensed waste management company.

Contaminated packaging : Empty remaining contents.  
Dispose of as unused product.  
Do not re-use empty containers.  
Empty containers should be taken to an approved waste handling site for recycling or disposal.

### 14. TRANSPORT INFORMATION

#### International Regulations

##### UNRTDG

UN number : UN 3077  
Proper shipping name : ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S. (Iprodione)  
Class : 9  
Subsidiary risk : ENVIRONM.  
Packing group : III  
Labels : 9 (ENVIRONM.)  
Environmentally hazardous : yes

##### IATA-DGR

UN/ID No. : UN 3077  
Proper shipping name : Environmentally hazardous substance, solid, n.o.s. (Iprodione)  
Class : 9  
Packing group : III  
Labels : Miscellaneous  
Packing instruction (cargo aircraft) : 956  
Packing instruction (passenger aircraft) : 956  
Environmentally hazardous : yes

##### IMDG-Code

UN number : UN 3077  
Proper shipping name : ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S. (Iprodione)  
Class : 9  
Packing group : III  
Labels : 9  
EmS Code : F-A, S-F  
Marine pollutant : yes

#### Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code

Not applicable for product as supplied.

#### 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

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Sheet. Transportation classifications may vary by mode of transportation, package sizes, and variations in regional or country regulations.

### 15. REGULATORY INFORMATION

#### **Safety, health and environmental regulations/legislation specific for the substance or mixture**

**Minister of Industry Regulation No. 23/M-IND/PER/4/2013 concerning the Revision of Minister of Industry Regulation No. 87/M-IND/PER/9/2009 concerning Globally Harmonized System of Classification and Labelling of Chemicals.**

#### **Regulation of the Minister of Health No. 472 of 1996 on the Safeguarding of Substances Hazardous to Health**

Hazardous substances that must be registered : Not applicable

#### **Government Regulation No. 74 of 2001 on the Management of Hazardous and Toxic Substances**

Hazardous substances approved for use : Not applicable

Prohibited substances : Not applicable

Restricted substances : Not applicable

#### **Regulation of the Ministry of Trade No. 7 of 2022 on Distribution and Control of Hazardous Materials**

Type of hazardous materials subject to distribution and control, Annex I : Not applicable

Type of hazardous materials subject to distribution and control, Annex II : Not applicable

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

TCSI	: On the inventory, or in compliance with the inventory
TSCA	: Product contains substance(s) not listed on TSCA inventory.
AIIC	: Not in compliance with the inventory
DSL	: This product contains the following components that are not on the Canadian DSL nor NDSL.  iprodone (ISO)
ENCS	: Not in compliance with the inventory
ISHL	: Not in compliance with the inventory
KECI	: On the inventory, or in compliance with the inventory
PICCS	: Not in compliance with the inventory

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IECSC	: On the inventory, or in compliance with the inventory
NZIoC	: Not in compliance with the inventory
TECI	: Not in compliance with the inventory

### 16. OTHER INFORMATION

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#### Full text of other abbreviations

ACGIH	: USA. ACGIH Threshold Limit Values (TLV)
ID OEL	: Indonesia. Occupational Exposure Limits

ACGIH / TWA	: 8-hour, time-weighted average
ID OEL / NAB	: Long term exposure limit

AIIC - Australian Inventory of Industrial Chemicals; ANTT - National Agency for Transport by Land of Brazil; ASTM - American Society for the Testing of Materials; bw - Body weight; CMR - Carcinogen, Mutagen or Reproductive Toxicant; DIN - Standard of the German Institute for Standardisation; DSL - Domestic Substances List (Canada); ECx - Concentration associated with x% response; 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; 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; n.o.s. - Not Otherwise Specified; Nch - Chilean Norm; NO(A)EC - No Observed (Adverse) Effect Concentration; NO(A)EL - No Observed (Adverse) Effect Level; NOELR - No Observable Effect Loading Rate; NOM - Official Mexican Norm; 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; REACH - Regulation (EC) No 1907/2006 of the European Parliament and of the Council concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals; SADT - Self-Accelerating Decomposition Temperature; SDS - Safety Data Sheet; TCSI - Taiwan Chemical Substance Inventory; TDG - Transportation of Dangerous Goods; 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; WHMIS - Workplace Hazardous Materials Information System

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