

# SAFETY DATA SHEET



## FONTELIS

Version	Revision Date:	SDS Number:	Date of last issue: -
1.0	02/04/2022	800080000416	Date of first issue: 02/04/2022

---

Corteva Agriscience™ encourages you and expects you to read and understand the entire SDS as there is important information throughout the document. This SDS provides users with information relating to the protection of human health and safety at the workplace, protection of the environment and supports emergency response. Product users and applicators should primarily refer to the product label attached to or accompanying the product container. This Safety Data Sheet adheres to the standards and regulatory requirements of the United States and may not meet the regulatory requirements in other countries.

---

### SECTION 1. IDENTIFICATION

Product name : FONTELIS

#### Manufacturer or supplier's details

#### COMPANY IDENTIFICATION

**Manufacturer/importer** : CORTEVA AGRISCIENCE LLC  
9330 ZIONSVILLE RD  
INDIANAPOLIS, IN, 46268-1053  
UNITED STATES

**Customer Information Number** : 1-800-258-3033

**E-mail address** : customerinformation@corteva.com

**Emergency telephone** : INFOTRAC (CONTRACT 84224).  
800-992-5994 or 317-337-6009

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

**Recommended use** : Fungicide

**Restrictions on use** : Do not use product for anything outside of the above specified uses.

---

### SECTION 2. HAZARDS IDENTIFICATION

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

Not a hazardous substance or mixture.

#### GHS label elements

Not a hazardous substance or mixture.

#### Other hazards

None known.

# SAFETY DATA SHEET



## FONTELIS

Version 1.0      Revision Date: 02/04/2022      SDS Number: 800080000416      Date of last issue: -  
Date of first issue: 02/04/2022

### SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS

Substance / Mixture : Mixture

#### Components

Chemical name	CAS-No.	Concentration (% w/w)
penthiopyrad (ISO)	183675-82-3	20.4
White mineral oil (petroleum)	8042-47-5	>= 40 - < 50
Propanediol	57-55-6	>= 3 - < 10
Ammonium Salt of Polyarylphenyl Ether Sulphate	119432-41-6	>= 3 - < 10
Alkyl naphthalenesulfonic acid, polymer with formaldehyde, sodium salt	68425-94-5	>= 1 - < 3
Balance	Not Assigned	> 5

Actual concentration is withheld as a trade secret

### SECTION 4. FIRST AID MEASURES

- General advice : Have the product container or label with you when calling a poison control center or doctor, or going for treatment. Information presented in Section 4 conforms to the requirements of the Occupational Safety and Health Administration (OSHA) Hazard Communication Standard of 2012. See Section 15 for applicable information conforming to the requirements of the Federal Insecticide Fungicide and Rodenticide Act (FIFRA), as required by the US Environmental Protection Agency (EPA), or by state Regulatory Agencies. For medical emergencies involving this product, call toll free 1-888-226-8832. See Label for Additional Precautions and Directions for Use.
- If inhaled : Move to fresh air.  
If not breathing, if breathing is irregular or if respiratory arrest occurs, provide artificial respiration or oxygen by trained personnel.  
Call a poison control center or doctor for treatment advice.
- In case of skin contact : Take off all contaminated clothing immediately.  
Rinse skin immediately with plenty of water for 15-20 minutes.  
Call a poison control center or doctor for treatment advice.
- In case of eye contact : Hold eye open and rinse slowly and gently with water for 15-20 minutes.  
Remove contact lenses, if present and easy to do. Continue rinsing.  
If eye irritation persists, consult a specialist.
- If swallowed : Call a poison control center or doctor for treatment advice.  
Have person sip a glass of water if able to swallow.  
DO NOT induce vomiting unless directed to do so by a physician or poison control center.  
Never give anything by mouth to an unconscious person.
- Most important symptoms and effects, both acute and delayed : No information available.
- Notes to physician : Treat symptomatically.

## FONTELIS

Version	Revision Date:	SDS Number:	Date of last issue: -
1.0	02/04/2022	800080000416	Date of first issue: 02/04/2022

---

**SECTION 5. FIRE-FIGHTING MEASURES**

- Suitable extinguishing media : Water spray  
Alcohol-resistant foam
- Unsuitable extinguishing media : None known.
- Specific hazards during fire fighting : Exposure to combustion products may be a hazard to health. Do not allow run-off from firefighting to enter drains or water courses.
- Hazardous combustion products : During a fire, smoke may contain the original material in addition to combustion products of varying composition which may be toxic and/or irritating.
- Specific extinguishing methods : Remove undamaged containers from fire area if it is safe to do so.  
Evacuate area.  
Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.  
Use water spray to cool unopened containers.
- Further information : 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 for fire-fighters : Wear self-contained breathing apparatus for firefighting if necessary.  
Use personal protective equipment.

**SECTION 6. ACCIDENTAL RELEASE MEASURES**

- Personal precautions, protective equipment and emergency procedures : Use appropriate safety equipment. For additional information, refer to Section 8, Exposure Controls and Personal Protection.
- Environmental precautions : If the product contaminates rivers and lakes or drains inform respective authorities.  
Discharge into the environment must be avoided.  
Prevent further leakage or spillage if safe to do so.  
Prevent spreading over a wide area (e.g., by containment or oil barriers).  
Retain and dispose of contaminated wash water.  
Local authorities should be advised if significant spillages cannot be contained.  
Prevent from entering into soil, ditches, sewers, underwater.  
See Section 12, Ecological Information.
- Methods and materials for containment and cleaning up : Clean up remaining materials from spill with suitable absorbent.  
Local or national regulations may apply to releases and disposal of this material, as well as those materials and items employed in.  
For large spills, provide dyking or other appropriate contain-

# SAFETY DATA SHEET



## FONTELIS

Version 1.0      Revision Date: 02/04/2022      SDS Number: 800080000416      Date of last issue: -  
Date of first issue: 02/04/2022

ment to keep material from spreading. If dyked material can be pumped, Recovered material should be stored in a vented container. The vent must prevent the ingress of water as further reaction with spilled materials can take place which could lead to over-pressurization of the container. Keep in suitable, closed containers for disposal. Wipe up with absorbent material (e.g. cloth, fleece). Soak up with inert absorbent material (e.g. sand, silica gel, acid binder, universal binder, sawdust). See Section 13, Disposal Considerations, for additional information.

### SECTION 7. HANDLING AND STORAGE

- Advice on safe handling : Do not breathe vapors/dust. Handle in accordance with good industrial hygiene and safety practice. Smoking, eating and drinking should be prohibited in the application area. Take care to prevent spills, waste and minimize release to the environment. Use appropriate safety equipment. For additional information, refer to Section 8, Exposure Controls and Personal Protection.
- Conditions for safe storage : Store in a closed container. Containers which are opened must be carefully resealed and kept upright to prevent leakage. Keep in properly labeled containers. Store in accordance with the particular national regulations.
- Materials to avoid : Strong oxidizing agents
- Packaging material : Unsuitable material: None known.

### SECTION 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

#### Ingredients with workplace control parameters

Components	CAS-No.	Value type (Form of exposure)	Control parameters / Permissible concentration	Basis
White mineral oil (petroleum)	8042-47-5	TWA (Mist)	5 mg/m <sup>3</sup>	OSHA Z-1
		TWA (Inhalable particulate matter)	5 mg/m <sup>3</sup>	ACGIH
Propanediol	57-55-6	TWA	10 mg/m <sup>3</sup>	US WEEL

- Engineering measures** : Information presented in Section 8 conforms to the requirements of the Occupational Safety and Health Administration (OSHA) Hazard Communication Standard of 2012. See Section 15 for applicable information conforming to the requirements of the Federal Insecticide Fungicide and Rodenticide Act (FIFRA), as required by the US Environmental Protection Agency (EPA), or by state Regulatory

## FONTELIS

Version	Revision Date:	SDS Number:	Date of last issue: -
1.0	02/04/2022	800080000416	Date of first issue: 02/04/2022

---

When handlers use closed systems, enclosed cabs, or aircraft in a manner that meets the requirements listed in the Worker Protection Standard(WPS) for agricultural pesticides [40 CFR 170.240 (d)(4-6)], the handler PPE requirements may be reduced or modified as specified in the WPS.

**Personal protective equipment**

- Respiratory protection : Respiratory protection should be worn when there is a potential to exceed the exposure limit requirements or guidelines. If there are no applicable exposure limit requirements or guidelines, use an approved respirator. Selection of air-purifying or positive-pressure supplied-air will depend on the specific operation and the potential airborne concentration of the material. For emergency conditions, use an approved positive-pressure self-contained breathing apparatus.
- Hand protection
- Remarks : Use gloves chemically resistant to this material. Examples of preferred glove barrier materials include: Butyl rubber. Natural rubber ("latex"). Neoprene. Nitrile/butadiene rubber ("nitrile" or "NBR"). Polyethylene. Ethyl vinyl alcohol laminate ("EVAL"). Polyvinyl chloride ("PVC" or "vinyl"). NOTICE: The selection of a specific glove for a particular application and duration of use in a workplace should also take into account all relevant workplace factors such as, but not limited to: Other chemicals which may be handled, physical requirements (cut/puncture protection, dexterity, thermal protection), potential body reactions to glove materials, as well as the instructions/specifications provided by the glove supplier.
- Eye protection : Use safety glasses (with side shields).
- Skin and body protection : Mixers, loaders, applicators and other handlers must wear:  
Long sleeved shirt and long pants  
Shoes plus socks
- Protective measures : Follow manufacturer's instructions for cleaning/maintaining PPE. If no such instructions for washables exist, use detergent and hot water. Keep and wash PPE separately from other laundry.  
Do not apply this product in a way that will contact workers or other persons, either directly or through drift.  
Only protected handlers may be in the area during application.  
Use this product in accordance with its label.
- Hygiene measures : Wash hands thoroughly with soap and water after handling and before eating, drinking, chewing gum, using tobacco, or using the toilet.  
Remove clothing/PPE immediately if material gets inside.  
Wash thoroughly and put on clean clothing.  
Remove personal protective equipment immediately after handling this product.  
Wash the outside of gloves before removing.  
As soon as possible, wash thoroughly and change into clean clothing.

## FONTELIS

Version	Revision Date:	SDS Number:	Date of last issue: -
1.0	02/04/2022	800080000416	Date of first issue: 02/04/2022

---

**SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES**

Appearance	:	liquid
Color	:	off-white
Odor	:	slight, ester-like
Odor Threshold	:	not determined
pH	:	6.66 Concentration: 10 g/L
Melting point/range	:	Not applicable, the product is a liquid.
Freezing point	:	Not determined
Boiling point/boiling range	:	No data available
Flash point	:	> 221 °F / > 105 °C Method: closed cup
Evaporation rate	:	No data available
Flammability (solid, gas)	:	Does not sustain combustion.
Self-ignition	:	ca. 725 °F / 385 °C
Upper explosion limit / Upper flammability limit	:	No data available
Lower explosion limit / Lower flammability limit	:	No data available
Vapor pressure	:	No data available
Relative vapor density	:	No data available
Relative density	:	0.9789
Density	:	No data available
Solubility(ies) Water solubility	:	dispersible
Partition coefficient: n-octanol/water	:	Not applicable
Autoignition temperature	:	725 °F / 385 °C
Viscosity Viscosity, dynamic	:	770.7 mPa.s 30 rpm

## FONTELIS

Version	Revision Date:	SDS Number:	Date of last issue: -
1.0	02/04/2022	800080000416	Date of first issue: 02/04/2022

---

Explosive properties : Not explosive

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

---

**SECTION 10. STABILITY AND REACTIVITY**

Reactivity : Not classified as a reactivity hazard.

Chemical stability : No decomposition if stored and applied as directed.  
Stable under normal conditions.

Possibility of hazardous reactions : Stable under recommended storage conditions.  
No hazards to be specially mentioned.  
None known.

Conditions to avoid : None known.

Incompatible materials : None.

Hazardous decomposition products : Decomposition products depend upon temperature, air supply and the presence of other materials.

---

**SECTION 11. TOXICOLOGICAL INFORMATION****Acute toxicity****Product:**

Acute oral toxicity : LD50 (Rat, female): > 5,000 mg/kg  
Method: OECD Test Guideline 425  
Symptoms: No deaths occurred at this concentration.

Acute inhalation toxicity : LC50 (Rat, male and female): > 3.5 mg/l  
Exposure time: 4 h  
Test atmosphere: dust/mist  
Method: OECD Test Guideline 403  
Symptoms: No deaths occurred at this concentration.  
Assessment: The substance or mixture has no acute inhalation toxicity

Acute dermal toxicity : LD50 (Rat, male and female): > 5,000 mg/kg  
Method: OECD Test Guideline 402  
Symptoms: No deaths occurred at this concentration.

**Components:****penthiopyrad (ISO):**

Acute oral toxicity : LD50 (Rat, male and female): > 2,000 mg/kg  
Method: OECD Test Guideline 423  
Symptoms: No deaths occurred at this concentration.  
Assessment: The substance or mixture has no acute oral toxicity

Acute inhalation toxicity : LC50 (Rat, male and female): > 5.59 mg/l  
Exposure time: 4 h  
Test atmosphere: dust/mist

---

## FONTELIS

Version 1.0      Revision Date: 02/04/2022      SDS Number: 800080000416      Date of last issue: -  
Date of first issue: 02/04/2022

---

Method: OECD Test Guideline 403

Acute dermal toxicity : LD50 (Rat, male and female): > 2,000 mg/kg  
Method: OECD Test Guideline 402  
Symptoms: No deaths occurred at this concentration.  
Assessment: The substance or mixture has no acute dermal toxicity

**White mineral oil (petroleum):**

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

Acute inhalation toxicity : LC50 (Rat, male and female): > 5 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

Acute dermal toxicity : LD50 (Rabbit): > 2,000 mg/kg  
Symptoms: No deaths occurred at this concentration.  
Assessment: The substance or mixture has no acute dermal toxicity

**Propanediol:**

Acute oral toxicity : LD50 (Rat): > 20,000 mg/kg

Acute inhalation toxicity : LC50 (Rabbit): 317.042 mg/l  
Exposure time: 2 h  
Test atmosphere: dust/mist  
Symptoms: No deaths occurred at this concentration.  
Assessment: The substance or mixture has no acute inhalation toxicity  
Remarks: Mist may cause irritation of upper respiratory tract (nose and throat).

Acute dermal toxicity : LD50 (Rabbit): > 2,000 mg/kg  
Symptoms: No deaths occurred at this concentration.  
Assessment: The substance or mixture has no acute dermal toxicity

**Ammonium Salt of Polyaryphenyl Ether Sulphate:**

Acute oral toxicity : LD50 (Rat): > 2,000 mg/kg

**Alkyl naphthalenesulfonic acid, polymer with formaldehyde, sodium salt:**

Acute oral toxicity : LD50 (Rat): > 4,500 mg/kg

**Skin corrosion/irritation****Product:**

Species : Rabbit  
Method : OECD Test Guideline 404



## FONTELIS

Version 1.0      Revision Date: 02/04/2022      SDS Number: 800080000416      Date of last issue: -  
Date of first issue: 02/04/2022

---

Result : No skin irritation

**Components:****penthiopyrad (ISO):**

Species : Rabbit  
Exposure time : 72 h  
Method : OECD Test Guideline 404  
Result : No skin irritation

**Propanediol:**

Species : Rabbit  
Result : No skin irritation

**Alkyl naphthalenesulfonic acid, polymer with formaldehyde, sodium salt:**

Species : Rabbit  
Result : No skin irritation

**Serious eye damage/eye irritation****Product:**

Species : Rabbit  
Result : No eye irritation  
Method : OECD Test Guideline 405

**Components:****penthiopyrad (ISO):**

Species : Rabbit  
Result : No eye irritation  
Exposure time : 72 h  
Method : OECD Test Guideline 405

**Propanediol:**

Species : Rabbit  
Result : No eye irritation

**Ammonium Salt of Polyarylphenyl Ether Sulphate:**

Result : Corrosive

**Alkyl naphthalenesulfonic acid, polymer with formaldehyde, sodium salt:**

Species : Rabbit  
Result : Eye irritation

**Respiratory or skin sensitization****Product:**

Test Type : Maximization Test  
Species : Guinea pig

## FONTELIS

Version	Revision Date:	SDS Number:	Date of last issue: -
1.0	02/04/2022	800080000416	Date of first issue: 02/04/2022

---

Method : OECD Test Guideline 406  
 Result : Does not cause skin sensitization.

**Components:****penthiopyrad (ISO):**

Test Type : Maximization Test  
 Species : Guinea pig  
 Assessment : Does not cause skin sensitization.  
 Method : OECD Test Guideline 406

**White mineral oil (petroleum):**

Remarks : Did not cause allergic skin reactions when tested in guinea pigs.

Remarks : For respiratory sensitization:  
 No relevant data found.

**Propanediol:**

Species : human  
 Assessment : Does not cause skin sensitization.

**Germ cell mutagenicity****Components:****penthiopyrad (ISO):**

Germ cell mutagenicity - Assessment : In vivo tests did not show mutagenic effects, In vitro genetic toxicity studies were negative.

**White mineral oil (petroleum):**

Germ cell mutagenicity - Assessment : In vitro genetic toxicity studies were negative.

**Propanediol:**

Germ cell mutagenicity - Assessment : In vitro genetic toxicity studies were negative., Animal genetic toxicity studies were negative.

**Ammonium Salt of Polyarylphenyl Ether Sulphate:**

Germ cell mutagenicity - Assessment : In vitro genetic toxicity studies were negative.

**Carcinogenicity****Components:****penthiopyrad (ISO):**

Carcinogenicity - Assessment : Did not cause cancer in laboratory animals.

**White mineral oil (petroleum):**

Carcinogenicity - Assessment : Did not cause cancer in laboratory animals.

## FONTELIS

Version	Revision Date:	SDS Number:	Date of last issue: -
1.0	02/04/2022	800080000416	Date of first issue: 02/04/2022

---

ment

**Propanediol:**

Carcinogenicity - Assessment : Did not cause cancer in laboratory animals.

ment

**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****Components:****penthiopyrad (ISO):**

Reproductive toxicity - Assessment : In animal studies, did not interfere with reproduction. Did not cause birth defects or any other fetal effects in laboratory animals.

**White mineral oil (petroleum):**

Reproductive toxicity - Assessment : In animal studies, did not interfere with reproduction. Did not cause birth defects in laboratory animals.

**Propanediol:**

Reproductive toxicity - Assessment : In animal studies, did not interfere with reproduction., In animal studies, did not interfere with fertility. Did not cause birth defects or any other fetal effects in laboratory animals.

**STOT-single exposure****Product:**

Assessment : Evaluation of available data suggests that this material is not an STOT-SE toxicant.

**Components:****penthiopyrad (ISO):**

Assessment : Evaluation of available data suggests that this material is not an STOT-SE toxicant.

**White mineral oil (petroleum):**

Assessment : Available data are inadequate to determine single exposure specific target organ toxicity.

**Propanediol:**

Assessment : Evaluation of available data suggests that this material is not

## FONTELIS

Version 1.0      Revision Date: 02/04/2022      SDS Number: 800080000416      Date of last issue: -  
Date of first issue: 02/04/2022

---

an STOT-SE toxicant.

**Alkylnaphthalenesulfonic acid, polymer with formaldehyde, sodium salt:**

Assessment : Available data are inadequate to determine single exposure specific target organ toxicity.

**Repeated dose toxicity****Components:****penthiopyrad (ISO):**

Species : multiple species  
Application Route : Oral  
Method : OECD Test Guideline 407  
Remarks : In animals, effects have been reported on the following organs:  
Reduced body weight gain  
Liver effects  
Thyroid effects  
Spleen effects  
Gallbladder effects  
Liver enlargement  
immune system effects  
altered blood chemistry  
altered hematology  
Organ weight changes  
Decreased spleen weight  
Increased liver weight

**White mineral oil (petroleum):**

Remarks : Based on available data, repeated exposures are not anticipated to cause additional significant adverse effects.

**Propanediol:**

Remarks : In rare cases, repeated excessive exposure to propylene glycol may cause central nervous system effects.

**Ammonium Salt of Polyarylphenyl Ether Sulphate:**

Remarks : Based on available data, repeated exposures are not anticipated to cause significant adverse effects.

**Aspiration toxicity****Product:**

Based on physical properties, not likely to be an aspiration hazard.

**Components:****penthiopyrad (ISO):**

Based on physical properties, not likely to be an aspiration hazard.

## FONTELIS

Version	Revision Date:	SDS Number:	Date of last issue: -
1.0	02/04/2022	800080000416	Date of first issue: 02/04/2022

**White mineral oil (petroleum):**

Based on physical properties, not likely to be an aspiration hazard.

**Propanediol:**

Based on physical properties, not likely to be an aspiration hazard.

**Ammonium Salt of Polyaryphenyl Ether Sulphate:**

Based on physical properties, not likely to be an aspiration hazard.

**Alkyl-naphthalenesulfonic acid, polymer with formaldehyde, sodium salt:**

Based on physical properties, not likely to be an aspiration hazard.

**SECTION 12. ECOLOGICAL INFORMATION****Ecotoxicity****Product:**

- |  |   |  |
|--|---|--|
| Toxicity to fish   | : | LC50 (Oncorhynchus mykiss (rainbow trout)): 2.2 mg/l<br>Exposure time: 96 h<br>Test Type: static test<br>Method: OECD Test Guideline 203<br>GLP: yes     |
| Toxicity to daphnia and other aquatic invertebrates                    | : | EC50 (Daphnia magna (Water flea)): 0.29 mg/l<br>Exposure time: 48 h<br>Test Type: static test<br>Method: OECD Test Guideline 202<br>GLP: yes             |
| Toxicity to algae/aquatic plants                                       | : | ErC50 (Pseudokirchneriella subcapitata (green algae)): > 10 mg/l<br>Exposure time: 72 h<br>Method: OECD Test Guideline 201<br>GLP: yes                   |
| Toxicity to daphnia and other aquatic invertebrates (Chronic toxicity) | : | NOEC (Daphnia magna (Water flea)): 0.075 mg/l<br>Exposure time: 21 d<br>Test Type: Semi-Static-Life-Cycle<br>Method: OECD Test Guideline 211<br>GLP: yes |
| Toxicity to terrestrial organisms                                      | : | oral LD50 (Apis mellifera (bees)): 517.42 µg/bee<br>Exposure time: 2 d<br>Method: OECD Test Guideline 213<br>GLP: yes                                    |
|  |   | contact LD50 (Apis mellifera (bees)): 482.63 µg/bee<br>Exposure time: 2 d<br>Method: OECD Test Guideline 214<br>GLP: yes                                 |

## FONTELIS

Version	Revision Date:	SDS Number:	Date of last issue: -
1.0	02/04/2022	800080000416	Date of first issue: 02/04/2022

---

**Components:****penthiopyrad (ISO):**

- Toxicity to fish : LC50 (Cyprinus carpio (Carp)): 0.572 mg/l  
 Exposure time: 96 h  
 Test Type: flow-through  
 Method: OECD Test Guideline 203
- LC50 (Pimephales promelas (fathead minnow)): 0.290 mg/l  
 Exposure time: 96 h  
 Test Type: semi-static test  
 Method: OECD Test Guideline 203
- Toxicity to daphnia and other aquatic invertebrates : EC50 (Daphnia magna (Water flea)): > 1.375 mg/l  
 Exposure time: 48 h  
 Test Type: Static  
 Method: OECD Test Guideline 202
- LC50 (Americamysis bahia (mysid shrimp)): > 1.7 mg/l  
 Exposure time: 96 h  
 Test Type: Static  
 Method: US EPA Test Guideline OPPTS 850.1035
- Toxicity to algae/aquatic plants : ErC50 (Pseudokirchneriella subcapitata (green algae)): > 4.0 mg/l  
 Exposure time: 72 h  
 Test Type: Growth inhibition  
 Method: OECD Test Guideline 201
- NOEC (Pseudokirchneriella subcapitata (green algae)): 0.45 mg/l  
 Exposure time: 72 h  
 Test Type: Growth inhibition  
 Method: OECD Test Guideline 201
- NOEC (Lemna gibba (gibbous duckweed)): 1.205 mg/l  
 Exposure time: 7 d  
 Test Type: Static  
 Method: OECD Test Guideline 201
- EbC50 (Pseudokirchneriella subcapitata (green algae)): 2.21 mg/l  
 Exposure time: 72 h  
 Test Type: Static  
 Method: OECD Test Guideline 201
- ErC50 (Pseudokirchneriella subcapitata (green algae)): > 1.5 mg/l  
 Exposure time: 96 h  
 Test Type: Static  
 Method: OECD Test Guideline 201
- ErC50 (Lemna gibba (duckweed)): > 1.2 mg/l  
 Exposure time: 7 d  
 Test Type: Static

## FONTELIS

Version	Revision Date:	SDS Number:	Date of last issue: -
1.0	02/04/2022	800080000416	Date of first issue: 02/04/2022

---

Method: OECD Test Guideline 221

- M-Factor (Acute aquatic toxicity) : 1
- Toxicity to fish (Chronic toxicity) : NOEC (Pimephales promelas (fathead minnow)): 0.051 mg/l  
Exposure time: 33 d  
Test Type: Early Life-Stage  
Method: OECD Test Guideline 210
- Toxicity to daphnia and other aquatic invertebrates (Chronic toxicity) : NOEC (Daphnia magna (Water flea)): 0.47 mg/l  
Exposure time: 21 d  
Test Type: flow-through test  
Method: OECD Test Guideline 211
- M-Factor (Chronic aquatic toxicity) : 1
- Toxicity to soil dwelling organisms : LC50 (Eisenia fetida (earthworms)): > 1,000 mg/kg  
Exposure time: 14 d  
Method: OECD Test Guideline 207
- Toxicity to terrestrial organisms : LD50 (Colinus virginianus (Bobwhite quail)): > 2,250 mg/kg  
Method: US EPA Test Guideline OPPTS 850.2100
- dietary LC50 (Colinus virginianus (Bobwhite quail)): > 1,913 mg/kg  
Exposure time: 5 d  
Method: OECD Test Guideline 205
- oral LD50 (Apis mellifera (bees)): > 500 µg/b  
Exposure time: 48 d  
Method: OECD Test Guideline 213
- contact LD50 (Apis mellifera (bees)): > 500 µg/b  
Exposure time: 48 d  
Method: OECD Test Guideline 214

**White mineral oil (petroleum):**

- Toxicity to fish : Remarks: Material is practically non-toxic to aquatic organisms on an acute basis (LC50/EC50/EL50/LL50 >100 mg/L in the most sensitive species tested).
- LC50 (Lepomis macrochirus (Bluegill sunfish)): > 10,000 mg/l  
Exposure time: 96 h  
Test Type: static test
- LL50 (Oncorhynchus mykiss (rainbow trout)): > 100 mg/l  
Exposure time: 96 h  
Test Type: static test  
Method: OECD Test Guideline 203
- LL50 (Leuciscus idus (Golden orfe)): > 10,000 mg/l  
Exposure time: 96 h  
Test Type: static test  
Method: OECD Test Guideline 203

## FONTELIS

Version	Revision Date:	SDS Number:	Date of last issue: -
1.0	02/04/2022	800080000416	Date of first issue: 02/04/2022

---

Toxicity to daphnia and other aquatic invertebrates : LL50 (*Daphnia magna* (Water flea)): > 100 mg/l  
 Exposure time: 48 h  
 Test Type: static test  
 Method: OECD Test Guideline 202

**Ecotoxicology Assessment**

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

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

**Propanediol:**

Toxicity to fish : LC50 (*Oncorhynchus mykiss* (rainbow trout)): 40,613 mg/l  
 Exposure time: 96 h  
 Test Type: static test  
 Method: OECD Test Guideline 203

Toxicity to daphnia and other aquatic invertebrates : LC50 (*Ceriodaphnia dubia* (water flea)): 18,340 mg/l  
 Exposure time: 48 h  
 Test Type: static test  
 Method: OECD Test Guideline 202

Toxicity to algae/aquatic plants : ErC50 (*Pseudokirchneriella subcapitata* (green algae)): 19,000 mg/l  
 End point: Growth rate inhibition  
 Exposure time: 96 h  
 Method: OECD Test Guideline 201

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

Toxicity to microorganisms : NOEC (*Pseudomonas putida*): > 20,000 mg/l  
 Exposure time: 18 h

**Ammonium Salt of Polyaryphenyl Ether Sulphate:**

Toxicity to fish : Remarks: Material is slightly toxic to aquatic organisms on an acute basis (LC50/EC50 between 10 and 100 mg/L in the most sensitive species tested).

LC50 (*Oncorhynchus mykiss* (rainbow trout)): 33 mg/l  
 Exposure time: 96 h

Toxicity to daphnia and other aquatic invertebrates : EC50 (*Daphnia magna* (Water flea)): 24 mg/l  
 Exposure time: 48 h

**Persistence and degradability****Components:**

**penthiopyrad (ISO):**



## FONTELIS

Version	Revision Date:	SDS Number:	Date of last issue: -
1.0	02/04/2022	800080000416	Date of first issue: 02/04/2022

---

Biodegradability : Result: Not readily biodegradable.  
Method: OECD Test Guideline 301F or Equivalent

**White mineral oil (petroleum):**

Biodegradability : Result: Not biodegradable.  
Remarks: Based on stringent OECD test guidelines, this material cannot be considered as readily biodegradable; however, these results do not necessarily mean that the material is not biodegradable under environmental conditions. Material is inherently biodegradable (reaches > 20% biodegradation in OECD test(s) for inherent biodegradability).

aerobic

Concentration: 20 mg/l

Biodegradation: 0 - 24 %

Exposure time: 28 d

Method: OECD Test Guideline 301B or Equivalent

Remarks: 10-day Window: Fail

ThOD : 3.50 kg/kg

Photodegradation : Test Type: Half-life (indirect photolysis)  
Sensitizer: OH radicals  
Rate constant: 8.28E-12 cm<sup>3</sup>/s  
Method: Estimated.

**Propanediol:**

Biodegradability : aerobic  
Result: Readily biodegradable.  
Biodegradation: 81 %  
Exposure time: 28 d  
Method: OECD Test Guideline 301F or Equivalent  
Remarks: 10-day Window: Pass

Biodegradation: 96 %

Exposure time: 64 d

Method: OECD Test Guideline 306 or Equivalent

Remarks: 10-day Window: Not applicable

Biochemical Oxygen Demand (BOD) : 69.000 %  
Incubation time: 5 d

70.000 %

Incubation time: 10 d

86.000 %

Incubation time: 20 d

Chemical Oxygen Demand (COD) : 1.53 kg/kg

ThOD : 1.68 kg/kg

Photodegradation : Rate constant: 1.28E-11 cm<sup>3</sup>/s  
Method: Estimated.

## FONTELIS

Version	Revision Date:	SDS Number:	Date of last issue: -
1.0	02/04/2022	800080000416	Date of first issue: 02/04/2022

---

**Ammonium Salt of Polyaryphenyl Ether Sulphate:**

Biodegradability : Remarks: Based on analogy.  
Based on stringent OECD test guidelines, this material cannot be considered as readily biodegradable; however, these results do not necessarily mean that the material is not biodegradable under environmental conditions.  
Material is ultimately biodegradable under anaerobic conditions, according to the relevant OECD test(s).

**Bioaccumulative potential****Components:****penthiopyrad (ISO):**

Biaccumulation : Species: Oncorhynchus mykiss (rainbow trout)  
Bioconcentration factor (BCF): 155 - 186  
Exposure time: 14 d  
Method: OECD Test Guideline 305

Partition coefficient: n-octanol/water : log Pow: 3.2 (75 °F / 24 °C)

**White mineral oil (petroleum):**

Biaccumulation : Species: Fish  
Bioconcentration factor (BCF): 1,900

Partition coefficient: n-octanol/water : log Pow: 5.18  
Method: Measured  
Remarks: Bioconcentration potential is high (BCF > 3000 or Log Pow between 5 and 7).

**Propanediol:**

Biaccumulation : Bioconcentration factor (BCF): 0.09  
Method: Estimated.

Partition coefficient: n-octanol/water : log Pow: -1.07  
Method: Measured  
Remarks: Bioconcentration potential is low (BCF < 100 or Log Pow < 3).

**Ammonium Salt of Polyaryphenyl Ether Sulphate:**

Partition coefficient: n-octanol/water : Remarks: No data available for this product.

**Alkyl naphthalenesulfonic acid, polymer with formaldehyde, sodium salt:**

Partition coefficient: n-octanol/water : Remarks: No data available for this product.

**Balance:**

Partition coefficient: n-octanol/water : Remarks: No relevant data found.

## FONTELIS

Version	Revision Date:	SDS Number:	Date of last issue: -
1.0	02/04/2022	800080000416	Date of first issue: 02/04/2022

---

**Mobility in soil****Product:**

Distribution among environmental compartments : Remarks: Under actual use conditions the product has a low potential of mobility in soil.

**Components:****penthiopyrad (ISO):**

Distribution among environmental compartments : Remarks: Under actual use conditions the product has a low potential of mobility in soil.

**White mineral oil (petroleum):**

Distribution among environmental compartments : Koc: 510  
Method: Estimated.  
Remarks: Potential for mobility in soil is low (Koc between 500 and 2000).

**Propanediol:**

Distribution among environmental compartments : Koc: < 1  
Method: Estimated.  
Remarks: Given its very low Henry's constant, volatilization from natural bodies of water or moist soil is not expected to be an important fate process.  
Potential for mobility in soil is very high (Koc between 0 and 50).

**Ammonium Salt of Polyaryphenyl Ether Sulphate:**

Distribution among environmental compartments : Remarks: No relevant data found.

**Balance:**

Distribution among environmental compartments : Remarks: No relevant data found.

**Other adverse effects****Components:****penthiopyrad (ISO):**

Results of PBT and vPvB assessment : This substance is not considered to be persistent, bioaccumulating and toxic (PBT). This substance is not considered to be very persistent and very bioaccumulating (vPvB).

**White mineral oil (petroleum):**

Results of PBT and vPvB assessment : This substance is not considered to be persistent, bioaccumulating and toxic (PBT). This substance is not considered to be very persistent and very bioaccumulating (vPvB).

Ozone-Depletion Potential : Remarks: This substance is not on the Montreal Protocol list of substances that deplete the ozone layer.

## FONTELIS

Version	Revision Date:	SDS Number:	Date of last issue: -
1.0	02/04/2022	800080000416	Date of first issue: 02/04/2022

---

**Propanediol:**

Results of PBT and vPvB assessment : This substance is not considered to be persistent, bioaccumulating and toxic (PBT). This substance is not considered to be very persistent and very bioaccumulating (vPvB).

Ozone-Depletion Potential : Remarks: This substance is not on the Montreal Protocol list of substances that deplete the ozone layer.

**Ammonium Salt of Polyarylphenyl Ether Sulphate:**

Results of PBT and vPvB assessment : This substance has not been assessed for persistence, bioaccumulation and toxicity (PBT).

Ozone-Depletion Potential : Remarks: This substance is not on the Montreal Protocol list of substances that deplete the ozone layer.

**Alkyl naphthalenesulfonic acid, polymer with formaldehyde, sodium salt:**

Results of PBT and vPvB assessment : This substance has not been assessed for persistence, bioaccumulation and toxicity (PBT).

Ozone-Depletion Potential : Remarks: This substance is not on the Montreal Protocol list of substances that deplete the ozone layer.

**Balance:**

Results of PBT and vPvB assessment : This substance has not been assessed for persistence, bioaccumulation and toxicity (PBT).

Ozone-Depletion Potential : Remarks: This substance is not on the Montreal Protocol list of substances that deplete the ozone layer.

---

**SECTION 13. DISPOSAL CONSIDERATIONS**
**Disposal methods**

Waste from residues : If wastes and/or containers cannot be disposed of according to the product label directions, disposal of this material must be in accordance with your local or area regulatory authorities. This information presented below only applies to the material as supplied. The identification based on characteristic(s) or listing may not apply if the material has been used or otherwise contaminated. It is the responsibility of the waste generator to determine the toxicity and physical properties of the material generated to determine the proper waste identification and disposal methods in compliance with applicable regulations.

If the material as supplied becomes a waste, follow all applicable regional, national and local laws.

## FONTELIS

Version 1.0      Revision Date: 02/04/2022      SDS Number: 800080000416      Date of last issue: -  
Date of first issue: 02/04/2022

---

**SECTION 14. TRANSPORT INFORMATION****International Regulations****UNRTDG**

UN number : UN 3082  
Proper shipping name : ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID,  
N.O.S.  
(Penthiopyrad)  
Class : 9  
Packing group : III  
Labels : 9

**IATA-DGR**

UN/ID No. : UN 3082  
Proper shipping name : Environmentally hazardous substance, liquid, n.o.s.  
(Penthiopyrad)  
Class : 9  
Packing group : III  
Labels : Miscellaneous  
Packing instruction (cargo : 964  
aircraft)  
Packing instruction (passen- : 964  
ger aircraft)

**IMDG-Code**

UN number : UN 3082  
Proper shipping name : ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID,  
N.O.S.  
(Penthiopyrad)  
Class : 9  
Packing group : III  
Labels : 9  
EmS Code : F-A, S-F  
Marine pollutant : yes  
Remarks : Stowage category A

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

Not applicable for product as supplied.

**Domestic regulation****49 CFR**

Not regulated as a dangerous good

**Further information**

Marine Pollutants assigned UN number 3077 and 3082 in single or combination packaging containing a net quantity per single or inner packaging of 5L or less for liquids or having a net mass per single or inner packaging of 5 KG or less for solids may be transported as non-dangerous goods as provided in section 2.10.2.7 of IMDG code, IATA Special provision A197, and ADR/RID special provision 375.

**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

# SAFETY DATA SHEET



## FONTELIS

Version 1.0      Revision Date: 02/04/2022      SDS Number: 800080000416      Date of last issue: -  
Date of first issue: 02/04/2022

---

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

---

### SECTION 15. REGULATORY INFORMATION

**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.

#### US State Regulations

##### Pennsylvania Right To Know

White mineral oil (petroleum)	8042-47-5
Propanediol	57-55-6
Distillates (petroleum), hydro- treated light; Kerosine — unspecified	64742-47-8

##### California Prop. 65

WARNING: This product can expose you to chemicals including Distillates (petroleum), hydro-treated light; Kerosine — unspecified, which is/are known to the State of California to cause cancer, and methanol, 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).

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

TSCA : Product contains substance(s) not listed on TSCA inventory.

##### TSCA list

No substances are subject to a Significant New Use Rule.

No substances are subject to TSCA 12(b) export notification requirements.

##### Federal Insecticide, Fungicide and Rodenticide Act

EPA Registration Number : 352-834

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

Prolonged or frequently repeated skin contact may cause allergic reactions in some individuals. May be harmful if swallowed.



# SAFETY DATA SHEET



## FONTELIS

Version	Revision Date:	SDS Number:	Date of last issue: -
1.0	02/04/2022	800080000416	Date of first issue: 02/04/2022

---

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