

## Safety Data Sheet Optiphen Plus

July 14th, 2023

### Section 1: Chemical Product and Company Identification

**Product name:** Optiphen Plus  
**Contact Info:** Bramble Berry Inc.  
2138 Humboldt Street  
Bellingham, WA 98225  
info@brambleberry.com  
www.brambleberry.com  
1-877-627-7883

**Emergency Phone Number:**

Within USA & Canada: 1.800.424.9300 CCN693143  
Outside USA & Canada: +1.703.527.3887 (collect calls accepted)

### Section 2: Hazards Identification

#### Classification of the substance or mixture

**GHS Classification:**

Eye Irritation: Category 2A

**GHS Label Elements:**



Hazard pictograms:

Signal Word:

Warning

Hazard Statements:

Causes eye irritation

**Precautionary Statements :**

Prevention: Wash skin thoroughly after handling. Wear eye protection/ face protection.

Response: IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses,



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if present and easy to do. Continue rinsing. If eye irritation persists: Get medical advice/ attention.

### Section 3: Composition/Information on Ingredients

**Substance/Mixture:** Mixture

**Hazardous components:**

Substance	CAS #'(s)	Classification	%
2-phenoxyethanol	122-99-6	Acute Tox. 4; H302 Eye Irrit. 2A; H319	52.3
1,2-octanediol	1117-86-8	Eye Irrit. 2A; H319	41.7
Sorbic Acid	110-44-1	Comb Dust Skin Irrit. 2; H315 Eye Irrit. 2A; H319 STOT SE 3; H335	6

### Section 4: First Aid Measures

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

**If inhaled:** If breathed in, move the person into fresh air. If unconscious, place in a recovery position and seek medical advice. If symptoms persist, call a physician.

**In case of skin contact:** Remove contaminated clothing. If irritation develops, get medical attention. If on skin, rinse well with water. Wash contaminated clothing before re-use.

**In case of eye contact:** Immediately flush eye(s) with plenty of water. Remove contact lenses. Protect unharmed eyes.

**If swallowed:** IF SWALLOWED: Call a POISON CENTER/ doctor if you feel unwell. Do not give milk or alcoholic beverages. Never give anything by mouth to an unconscious person. If symptoms persist, call a physician.

**Most important symptoms and effects, both acute and delayed:** Signs and symptoms of exposure to this material through breathing, swallowing, and/or passage of the material through the skin may include: stomach or intestinal upset (nausea, vomiting, diarrhea), irritation (nose, throat, airways), pain in the abdomen and lower back, acute kidney failure (sudden slowing or stopping of urine production). Causes serious eye irritation.

**Notes to physician:** No hazards which require special first aid measures.

## Section 5: Fire-Fighting Measures

**Suitable extinguishing media:** Use extinguishing measures that are appropriate to local circumstances and the surrounding environment. Water spray, Foam, Carbon dioxide (CO<sub>2</sub>), Dry chemical

**Unsuitable extinguishing media:** High volume water jet

**Specific hazards during firefighting:** If product is heated above its flash point it will produce vapors sufficient to support combustion. Vapors are heavier than air and may travel along the ground and be ignited by heat, pilot lights, other flames and ignition sources at locations near the point of release. Do not allow run-off from fire fighting to enter drains or water courses.

**Hazardous combustion products:** Carbon dioxide (CO<sub>2</sub>), Carbon monoxide

**Specific extinguishing methods:** Product is compatible with standard fire-fighting agents. Further information : Fire residues and contaminated fire extinguishing water must be disposed of in accordance with local regulations.

**Special protective equipment for firefighters:** In the event of fire, wear self-contained breathing apparatus.

## Section 6: Accidental Release Measures

**Personal precautions:** Use personal protective equipment. Persons not wearing protective equipment should be excluded from the area of the spill until clean-up has been completed.

**Environmental precautions:** Prevent products 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:** Soak up with inert absorbent material (e.g. sand, silica gel, acid binder, universal binder, sawdust). Keep in suitable, closed containers for disposal.

**Other information:** Comply with all applicable federal, state, and local regulations.

## Section 7: Handling and Storage

**Advice on protection against fire and explosion:** Normal measures for preventive fire protection.

**Advice on safe handling:** Do not breathe vapors/dust. Container hazardous when empty. Avoid contact with skin and eyes. 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 the container tightly closed in a dry and well-ventilated place. Containers which are opened must be carefully resealed and kept upright to prevent leakage.

**Recommended storage temperature:** 59 - 77 °F / 15 - 25 °C



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**Further information on storage stability:** Protect from frost. No decomposition if stored and applied as directed.

### Section 8: Exposure Controls/Personal Protection

#### Components with workplace control parameters:

Contains no substances with occupational exposure limit values.

#### Hazardous components without workplace control parameters:

Components	CAS-No.
2-PHENOXYETHANOL	122-99-6
1,2-OCTANEDIOL	1117-86-8
SORBIC ACID	110-44-1

**Engineering measures:** Provide sufficient mechanical (general and/or local exhaust) ventilation to maintain exposure below exposure guidelines (if applicable) or below levels that cause known, suspected or apparent adverse effects.

#### Personal protective equipment

**Respiratory protection:** In the case of vapour formation use a respirator with an approved filter within the capabilities of the respirator/filter combination. Where concentrations are above recommended limits or are unknown, or a cartridge type respirator is not adequate, wear a positive-pressure supplied-air respirator.

#### Hand protection

**Material:** butyl-rubber

**Break through time:** 480 min

**Glove thickness:** > 0.5 mm

**Remarks:** The exact break through time can be obtained from the protective glove producer and this has to be observed. Gloves should be discarded and replaced if there is any indication of degradation or chemical breakthrough. The suitability for a specific workplace should be discussed with the producers of the protective gloves.

**Eye protection:** Wear chemical splash goggles when there is the potential for exposure of the eyes to liquid, vapor or mist.

#### Skin and body protection:

Wear as appropriate:

-Impervious clothing

-Safety shoes

-Choose body protection according to the amount and concentration of the dangerous substance at the workplace.

-Wear resistant gloves (consult your safety equipment supplier).

#### Hygiene measures:



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- Wash hands before breaks and at the end of the workday.
- When using do not eat or drink.
- When using do not smoke.

## **Section 9: Physical and Chemical Properties**

**Appearance:** Liquid  
**Odor:** Characteristic  
**Color:** Light yellow  
**pH (Direct):** Not determined  
**Odour Threshold:** Not applicable  
**pH:** No data available  
**Melting point/freezing point:** not determined  
**Boiling point/boiling range:** not determined  
**Flash point:** 124°C  
**Evaporation rate:** not determined  
**Flammability (liquids):** not determined  
**Upper explosion limit:** Upper explosion limit not determined  
**Lower explosion limit:** Lower explosion limit not determined  
**Vapour pressure:** not determined  
**Relative vapour density:** not determined  
**Relative density:** No data available  
**Density:** 1.014 - 1.024 g/cm<sup>3</sup>  
**Solubility(ies)**  
    **Water solubility:** not determined  
    **Solubility in other solvents:** No data available  
**Partition coefficient: n-octanol/water:** not determined  
**Thermal decomposition:** No data available  
**Viscosity**  
    **Viscosity, dynamic:** not determined  
    **Viscosity, kinematic:** not determined  
**Oxidizing properties:** Not applicable

## **Section 10: Stability and Reactivity**

**Reactivity:** No decomposition if stored and applied as directed.  
**Chemical stability:** Stable under recommended storage conditions.  
**Possibility of hazardous reactions:** Product will not undergo hazardous polymerization.  
**Conditions to avoid:** Excessive Heat. Do not allow evaporation to dryness. Exposure to light.  
**Incompatible materials:** Strong acids, Strong bases, Strong oxidizing agents

**Hazardous decomposition products:** Carbon monoxide or Carbon dioxide (CO<sub>2</sub>)

## Section 11: Toxicological Information

**Information on likely routes of exposure:** Inhalation, Skin contact, Eye Contact, Ingestion

**Acute toxicity:** Not classified based on available information.

**Components:**

**2-PHENOXYETHANOL:**

Acute oral toxicity : LD50 (Rat, female): 1,840 mg/kg  
Method: OECD Test Guideline 401

Acute inhalation toxicity : Assessment: No adverse effect has been observed in acute inhalation toxicity tests.

Acute dermal toxicity : LD50 (Rat): 14,391 mg/kg

**1,2-OCTANEDIOL:**

Acute oral toxicity : LD50 (Rat): > 2,000 mg/kg  
Method: OECD Test Guideline 401  
GLP: yes

Assessment: No adverse effect has been observed in acute oral toxicity tests.

Acute inhalation toxicity : LC50 (Rat): > 7.015 mg/l  
Exposure time: 4 h  
Test atmosphere: dust/mist  
Method: OECD Test Guideline 403

Remarks: Information given is based on data obtained from similar substances.

**SORBIC ACID:**

Acute oral toxicity : LD50 (Rat): 7.36 g/kg  
Acute inhalation toxicity: LC50 (Rat): > 38.1 mg/m<sup>3</sup>  
Exposure time: 6 h  
Test atmosphere: dust/mist  
Acute dermal toxicity : LD50 (Rabbit): > 7,940 mg/kg

**Skin corrosion/irritation:** Not classified based on available information.

**Remarks:** May cause skin irritation in susceptible persons.

**Components:**

**2-PHENOXYETHANOL:**

Species: Rabbit  
Result: No skin irritation

**1,2-OCTANEDIOL:**

Species: Rabbit  
Result: No skin irritation

**SORBIC ACID:**

Result: Irritating to skin.

**Serious eye damage/eye irritation:** Causes serious eye irritation.

**Remarks:** Vapors may cause irritation to the eyes, respiratory system and the skin. Causes serious eye irritation.

**Components:**

**2-PHENOXYETHANOL:**

Species: Rabbit  
Result: Irritating to eyes.

**1,2-OCTANEDIOL:**

Result: Irritating to eyes.

**SORBIC ACID:**

Species: Rabbit  
Result: Irritating to eyes.  
Method: OECD Test Guideline 405

**Respiratory or skin sensitisation:** Skin sensitisation: Not classified based on available information.

**Components:**

**2-PHENOXYETHANOL:**

Species: Guinea pig  
Assessment: Does not cause skin sensitisation.  
Method: OECD Test Guideline 406

**1,2-OCTANEDIOL:**

Test Type: Local lymph node assay  
Species: Mouse  
Assessment: Did not cause sensitisation on laboratory animals.  
Method: OECD Test Guideline 429  
Result: Did not cause sensitisation on laboratory animals.  
GLP: yes

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

**Components:**

**2-PHENOXYETHANOL:**

Genotoxicity in vitro : Test Type: Ames test  
Test species: Salmonella typhimurium  
Metabolic activation: with and without metabolic activation  
Result: negative

**1,2-OCTANEDIOL:**

Genotoxicity in vitro : Test Type: Ames test  
Metabolic activation: with and without metabolic activation  
Method: OECD Test Guideline 476  
Result: negative

GLP: yes

**Carcinogenicity:** Not classified based on available information.

**Reproductive toxicity:** Not classified based on available information.

**Components:**

**2-PHENOXYETHANOL:**

Effects on fetal development: Test Type: Pre-natal

Species: Rat

Application Route: Oral

General Toxicity Maternal: No observed adverse effect level: ca. 300 mg/kg bw/day

Method: OPPTS 870.3700

**STOT - single exposure:** Not classified based on available information.

**Components:**

**SORBIC ACID:**

Exposure routes: Inhalation

Target Organs: Respiratory Tract

Assessment: May cause respiratory irritation.

**STOT - repeated exposure:** Not classified based on available information.

**Repeated dose toxicity**

**Components:**

**2-PHENOXYETHANOL:**

Species: Rat, male and female

NOAEL: 369 mg/kg

Application Route: Oral

Method: OECD Test Guideline 408

Species: Rabbit, male and female

NOAEL: 500 mg/kg

Application Route: Dermal

**Aspiration toxicity:** Not classified based on available information. No aspiration toxicity classification.

**Carcinogenicity:**

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





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## Section 12: Ecological Information

### Ecotoxicity:

#### Ecotoxicology Assessment:

**Short-term (acute) aquatic hazard:** Acute aquatic toxicity Category 2; Toxic to aquatic life.

**Long-term (chronic) aquatic:** Not classified based on available information.

#### Components:

#### **2-PHENOXYETHANOL:**

##### Toxicity to fish :

LC50 (Pimephales promelas (fathead minnow)): 337 - 352 mg/l

Exposure time: 96 h

Test Type: flow-through test

##### Toxicity to daphnia and other aquatic invertebrates:

EC50 (Daphnia magna (Water flea)): > 500 mg/l

Exposure time: 48 h

Test Type: static test

Method: OECD Test Guideline 202

##### Toxicity to algae:

NOEC (Desmodesmus subspicatus (green algae)): > 500 mg/l

End point: Growth inhibition

Exposure time: 72 h

Test Type: static test

##### Toxicity to fish (Chronic toxicity):

NOEC (Pimephales promelas (fathead minnow)): 23 mg/l

Exposure time: 34 d

Test Type: flow-through test

Method: OECD Test Guideline 210

##### Toxicity to daphnia and other aquatic invertebrates (Chronic toxicity):

NOEC (Daphnia (water flea)): 9.43 mg/l

Exposure time: 21 d

End point: Reproduction Test

Test Type: semi-static test

Method: OECD Test Guideline 211

#### **1,2-OCTANEDIOL:**

##### Toxicity to fish :

LC50 (Danio rerio (zebra fish)): > 2.2 - < 22.2 mg/l

Exposure time: 96 h

Test Type: static test

##### Toxicity to daphnia and other aquatic invertebrates:

EC50 (Daphnia magna (Water flea)): 176 mg/l



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Exposure time: 48 h  
Test Type: semi-static test  
Method: OECD Test Guideline 202

**Toxicity to algae:**

EC50 (*Pseudokirchneriella subcapitata* (green algae)): 35 mg/l  
End point: Growth inhibition  
Exposure time: 72 h  
Method: OECD Test Guideline 201  
GLP: yes

**SORBIC ACID:**

**Toxicity to fish :**

LC50 (*Oryzias latipes* (Orange-red killifish)): 75 mg/l  
Exposure time: 96 h  
Test Type: semi-static test  
Method: OECD Test Guideline 203  
GLP: yes

**Toxicity to daphnia and other aquatic invertebrates:**

EC50 (*Daphnia magna* (Water flea)): 70 mg/l  
Exposure time: 48 h  
Test Type: static test  
Method: OECD Test Guideline 202  
GLP: yes

**Toxicity to algae :**

EbC50 (*Desmodesmus subspicatus* (green algae)): 24.1 mg/l  
End point: Biomass  
Exposure time: 72 h  
Test Type: static test  
Method: OECD Test Guideline 201  
GLP: yes  
ErC50 (*Desmodesmus subspicatus* (green algae)): 41.9 mg/l  
End point: Growth inhibition  
Exposure time: 72 h  
Test Type: static test  
Method: OECD Test Guideline 201  
GLP: yes

**Toxicity to daphnia and other aquatic invertebrates (Chronic toxicity):**

NOEC (*Daphnia magna* (Water flea)): 50 mg/l  
Exposure time: 21 d



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Test Type: semi-static test  
Method: OECD Test Guideline 211  
GLP: yes

### Persistence and degradability

#### Components:

##### **2-PHENOXYETHANOL:**

Biodegradability : Result: Readily biodegradable.  
Biodegradation: 99 %  
Exposure time: 28 d  
Method: OECD Test Guideline 301F

##### **1,2-OCTANEDIOL:**

Biodegradability : Result: Readily biodegradable.  
Biodegradation: 75 %  
Exposure time: 28 d  
Method: OECD Test Guideline 301D

##### **SORBIC ACID:**

Biodegradability : Result: Readily biodegradable.  
Biodegradation: 74.9 %  
Exposure time: 28 d  
Method: OECD Test Guideline 301D

### Bioaccumulative potential

#### Components:

##### **2-PHENOXYETHANOL:**

Partition coefficient: n- octanol/water: log Pow: 1.16

##### **1,2-OCTANEDIOL:**

Partition coefficient: n-octanol/water: log Pow: 1.0

##### **SORBIC ACID:**

Partition coefficient: n-octanol/water: log Pow: 1.33  
pH: 2.5

### Mobility in soil

#### Components:

No data available

### **Other adverse effects**

Additional ecological information: An environmental hazard cannot be excluded in the event of unprofessional handling or disposal., Toxic to aquatic life.

#### Components:

##### **2-PHENOXYETHANOL:**

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).

## Section 13: Disposal Conditions

### Disposal methods

**General advice :** 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. Send to a licensed waste management company. Dispose of in accordance with all applicable local, state and federal regulations.

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

## Section 14: Transport Information

### International transport regulations:

**U.S. DOT - Road:** Not dangerous goods

**CFR Rail:** Not dangerous goods

**U.S. Dot - Inland Waterways:** Not dangerous goods

**TDG Road:** Not dangerous goods

**TDG Rail:** Not dangerous goods

**TDG INWT:** Not dangerous goods

**International Maritime Dangerous Goods:** Not dangerous goods

**International Air Transport Association - Cargo:** Not dangerous goods

**International Air Transport Association - Passenger:** Not dangerous goods

**MX DG:** Not dangerous goods

**Marine Pollutant:** No

## Section 15: Regulatory Information

**EPCRA - Emergency Planning and Community Right-to-Know Act**

**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 311/312 Hazards :**

Serious eye damage or eye irritation

**SARA 302 :**

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



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### **SARA 313:**

The following components are subject to reporting levels established by SARA Title III, Section 313:

2-PHENOXYETHANOL 122-99-6 52.30

### **US State Regulations**

#### **Pennsylvania Right To Know**

2-PHENOXYETHANOL	122-99-6
1,2-OCTANEDIOL	1117-86-8
SORBIC ACID	110-44-1

#### **New Jersey Right To Know**

2-PHENOXYETHANOL	122-99-6
1,2-OCTANEDIOL	1117-86-8
SORBIC ACID	110-44-1

#### **California Prop. 65**

This product does not contain any chemicals known to the State of California to cause cancer, birth defects, or any other reproductive harm.

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

DSL : All components of this product are on the Canadian DSL  
AICS : On the inventory, or in compliance with the inventory  
ENCS : On the inventory, or in compliance with the inventory  
KECI : On the inventory, or in compliance with the inventory  
PICCS : Not in compliance with the inventory  
IECSC : On the inventory, or in compliance with the inventory  
TCSI : On the inventory, or in compliance with the inventory  
TSCA : On or in compliance with the active portion of the TSCA inventory

### **Inventories**

AICS (Australia), DSL (Canada), IECSC (China), REACH (European Union), ENCS (Japan), ISHL (Japan), KECI (Korea), NZIoC (New Zealand), PICCS (Philippines), TCSI (Taiwan), TSCA (USA)  
- On or in compliance with the active portion of the TSCA inventory

## **Section 16: Other Information**

The information in this publication is believed to be accurate and is given in good faith, but no representation of warranty as to its completeness or accuracy is made. Suggestions for uses or applications are only opinions. Users are responsible for determining the suitability of these products for their own particular purpose. No representing of warranty, expressed or implied, is made with respect to information or products including, without limitation, warranties or merchantability, fitness for a particular



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