



# PenaShield® Safety Data Sheet

Issue Date: 01-Aug-2022

Revision Date: 02-Nov-2023

Version 3

## 1. IDENTIFICATION

### Product identifier

**Product Name** PenaShield ®

### Other means of identification

**SDS #** NIS-059

**Registration Number(s)** EPA Reg. No. 64405-5

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

**Recommended Use** Termiticide, Insecticide, and Fungicide Concentrate. Read and understand the entire label before using. Use only according to label directions. It is a violation of Federal law to use this product in a manner inconsistent to label directions.

### Details of the supplier of the safety data sheet

#### **Manufacturer Address**

Nisus Corporation  
100 Nisus Drive  
Rockford, TN 37853

### Emergency telephone number

**Company Phone Number** Phone: (800)-264-0870  
Fax: (865) 577-5825

**Emergency Telephone** INFOTRAC 1-352-323-3500 (International)  
1-800-535-5053 (North America)

## 2. HAZARDS IDENTIFICATION

**Emergency Overview** This chemical is a product registered by the Environmental Protection Agency and is subject to certain labeling requirements under federal law. These requirements differ from the classification criteria and hazard information required for safety data sheets, and for workplace labels of non-EPA registered chemicals. Please see Section 15 for additional EPA information. Please see Section 11 for additional toxicological information.

**Appearance** Clear liquid

**Physical state** Liquid

**Odor** No odor

### Classification

Reproductive toxicity

Category 2

### Signal Word

Warning

### Hazard statements

Suspected of damaging fertility or the unborn child



### **Precautionary Statements - Prevention**

Obtain special instructions before use  
Do not handle until all safety precautions have been read and understood  
Wear protective gloves/protective clothing/eye protection/face protection

### **Precautionary Statements - Response**

If exposed or concerned: Get medical advice/attention

### **Precautionary Statements - Storage**

Store locked up

### **Precautionary Statements - Disposal**

Dispose of contents/container to an approved waste disposal plant

### **Other hazards**

Harmful to aquatic life with long lasting effects

## **3. COMPOSITION/INFORMATION ON INGREDIENTS**

<b>Chemical name</b>	<b>CAS No</b>	<b>Weight-%</b>
Ethylene glycol	107-21-1	10-15
Disodium octaborate tetrahydrate	12280-03-4	5-10
Proprietary component 1	Proprietary	0.1-1

\*\*If Chemical Name/CAS No is "proprietary" and/or Weight-% is listed as a range, the specific chemical identity and/or percentage of composition has been withheld as a trade secret.\*\*

## **4. FIRST AID MEASURES**

### **Description of first aid measures**

<b>Eye Contact</b>	Flush victim's eyes with large quantities of water, while holding the eyelids apart. Get medical attention if irritation develops or persists.
<b>Skin Contact</b>	Wash skin thoroughly with soap and water. Get medical attention if irritation develops. Remove and launder clothing before re-use.
<b>Inhalation</b>	Remove victim to fresh air. If breathing is difficult or irritation persists, get medical attention.
<b>Ingestion</b>	Do not induce vomiting unless directed to do so by a medical professional. Get immediate medical attention for large ingestions or if symptoms develop or if you feel unwell.

### **Most important symptoms and effects, both acute and delayed**

<b>Symptoms</b>	May cause eye and skin irritation. Inhalation of mists may cause mild mucous membrane and respiratory irritation. Harmful if swallowed. Repeated ingestion may cause kidney damage.
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**Indication of any immediate medical attention and special treatment needed**

**Notes to Physician** Immediate medical attention is required for large ingestions.

**5. FIRE-FIGHTING MEASURES****Suitable Extinguishing Media**

Use media appropriate for surrounding fire. Cool fire exposed containers and structures with water.

**Unsuitable Extinguishing Media** Not determined.

**Specific Hazards Arising from the Chemical**

A solid stream of water directed into hot, burning liquid would cause frothing and scattering of burning material. Burning may produce carbon monoxide, carbon dioxide and ethylene oxide.

**Protective equipment and precautions for firefighters**

As in any fire, wear self-contained breathing apparatus pressure-demand, MSHA/NIOSH (approved or equivalent) and full protective gear.

**6. ACCIDENTAL RELEASE MEASURES****Personal precautions, protective equipment and emergency procedures**

**Personal Precautions** Evacuate spill area and keep unprotected personnel away. Wear appropriate protective clothing as described in Section 8.

**Environmental precautions**

**Environmental precautions** Avoid release to the environment. See Section 12 for additional Ecological Information.

**Methods and material for containment and cleaning up**

**Methods for Containment** Prevent further leakage or spillage if safe to do so.

**Methods for Clean-Up** Dike and collect liquid or absorb with an inert absorbent and place in appropriate containers for disposal. Prevent spill from entering sewers and watercourses. Report releases as required by local, state and federal authorities.

**7. HANDLING AND STORAGE****Precautions for safe handling**

**Advice on Safe Handling** Avoid contact with the eyes, skin and clothing. Avoid breathing mists or aerosols. Wear protective clothing and equipment as described in Section 8. Use with adequate ventilation. Wash thoroughly with soap and water after handling. Remove contaminated clothing immediately and wash before reuse. Remove PPE immediately after handling. Wash thoroughly after using and change into clean clothing. Keep containers closed when not in use. Nonrefillable container. Do not reuse containers. Product residues in empty containers can be hazardous. Follow all SDS precautions when handling empty containers.

**Conditions for safe storage, including any incompatibilities**

**Storage Conditions** Store in a cool, dry, well-ventilated area away from incompatible materials. Keep out of reach of children. Do not freeze. Protect from physical damage.

**Incompatible Materials** Strong oxidizing agents. Aluminum.

## 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

### Exposure Guidelines

Chemical name	ACGIH TLV	OSHA PEL	NIOSH IDLH
Ethylene glycol 107-21-1	STEL: 50 ppm vapor fraction STEL: 10 mg/m <sup>3</sup> inhalable particulate matter, aerosol only TWA: 25 ppm vapor fraction	-	-
Disodium octaborate tetrahydrate 12280-03-4	STEL: 6 mg/m <sup>3</sup> inhalable particulate matter TWA: 2 mg/m <sup>3</sup> inhalable particulate matter	-	-

### Appropriate engineering controls

**Engineering Controls** Use with adequate general or local exhaust ventilation to maintain exposure levels below the occupational exposure limits.

### Individual protection measures, such as personal protective equipment

**Eye/Face Protection** Wear safety goggles or glasses where splashing is possible.

**Skin and Body Protection** Wear impervious gloves such as butyl rubber, nitrile, neoprene, polyethylene, polyvinyl chloride, or Viton. Follow instructions for Category C on an EPA resistance category selection chart for more options. Wear long-sleeve shirts, long pants, socks and shoes when using this product. Suitable washing facilities should be available in the work area.

**Respiratory Protection** In operations where exposure levels are exceeded, a NIOSH approved respirator with dust/mist cartridges with approved pesticide prefilter or supplied air respirator appropriate for the form and concentration of the contaminants should be used. Selection and use of respiratory equipment must be in accordance with OSHA 1910.134 and good industrial hygiene practice. Refer to the product label for additional information.

**General Hygiene Considerations** Handle in accordance with good industrial hygiene and safety practice.

## 9. PHYSICAL AND CHEMICAL PROPERTIES

### Information on basic physical and chemical properties

<b>Physical state</b>	Liquid	<b>Odor</b>	No odor
<b>Appearance</b>	Clear liquid	<b>Odor Threshold</b>	Not determined
<b>Color</b>	Not determined		

<u>Property</u>	<u>Values</u>	<u>Remarks • Method</u>
pH	6.8-7.0	
Melting point / freezing point	No data available	
Initial boiling point and boiling range	>100 °C / >212 °F	
Flash point	No data available	
Evaporation Rate	Not determined	
Flammability (Solid, Gas)	Liquid-Not applicable	
Flammability Limit in Air		
Upper flammability or explosive limits	No data available	
Lower flammability or explosive limits	No data available	
Vapor Pressure	Negligible	
Vapor Density	No data available	

<u>Property</u>	<u>Values</u>	<u>Remarks • Method</u>
Relative Density	1.06	
Water Solubility	100%	
Solubility in other solvents	Not determined	
Partition Coefficient	Not determined	
Autoignition temperature	No data available	
Hyphen	Not determined	
Kinematic viscosity	Not determined	
Dynamic Viscosity	Not determined	
Explosive Properties	Not determined	
Oxidizing Properties	Not determined	

## 10. STABILITY AND REACTIVITY

### Reactivity

Not reactive under normal conditions.

### Chemical stability

Stable under recommended storage conditions.

### Possibility of hazardous reactions

None under normal processing.

### Conditions to Avoid

None known.

### Incompatible materials

Strong oxidizing agents. Aluminum.

### Hazardous decomposition products

When heated to decomposition emits carbon monoxide, carbon dioxide, and ethylene oxide.

## 11. TOXICOLOGICAL INFORMATION

### Information on likely routes of exposure

#### Product Information

**Eye Contact** Avoid contact with eyes.

**Skin Contact** Avoid contact with skin.

**Inhalation** Do not inhale.

**Ingestion** May be harmful if swallowed.

### Component Information

Chemical name	Oral LD50	Dermal LD50	Inhalation LC50
Ethylene glycol 107-21-1	= 4700 mg/kg ( Rat )	= 10600 mg/kg ( Rat )	> 2.5 mg/L ( Rat ) 6 h
Disodium octaborate tetrahydrate 12280-03-4	= 2500 mg/kg ( Rat )	-	-
Polyethylene glycol 25322-68-3	= 22 g/kg ( Rat )	> 20 g/kg ( Rabbit )	-
Proprietary component 1	= 84 mg/kg ( Rat )	> 1000 mg/kg ( Rat )	-

**Symptoms related to the physical, chemical and toxicological characteristics**

**Symptoms** Please see section 4 of this SDS for symptoms.

**Delayed and immediate effects as well as chronic effects from short and long-term exposure**

**Skin corrosion/irritation** Causes mild skin irritation.

**Carcinogenicity** Based on the information provided, this product does not contain any carcinogens or potential carcinogens as listed by OSHA, IARC or NTP.

**Reproductive toxicity** Sodium Borate: Sodium borate and boric acid interfere with sperm production, damage the testes and interfere with male fertility when given to animals by mouth at high doses. Boric acid produces developmental effects, including reduced body weight, malformations and death, in the offspring of pregnant animals given boric acid by mouth. The above mentioned animal studies were conducted under exposure conditions leading to doses many times in excess of those that could occur through product use or inhalation of dust in occupational settings. Moreover, a human study of occupational exposure to sodium borate and boric acid dusts showed no adverse effect on fertility.

**STOT - repeated exposure** May cause damage to organs through prolonged or repeated exposure.

**Numerical measures of toxicity**

The following values are calculated based on chapter 3.1 of the GHS document

**Unknown Acute Toxicity** 10.9908 % of the mixture consists of ingredient(s) of unknown toxicity.  
**Oral LD50** 4,209.60 mg/kg  
**Dermal LD50** 92,762.60 mg/kg  
**ATEmix (inhalation-dust/mist)** 13.20 mg/l

## 12. ECOLOGICAL INFORMATION

**Ecotoxicity**

Harmful to aquatic life with long lasting effects.

**Component Information**

Chemical name	Algae/aquatic plants	Fish	Crustacea
Ethylene glycol 107-21-1	EC50: 6500 - 13000mg/L (96h, Pseudokirchneriella subcapitata)	LC50: =41000mg/L (96h, Oncorhynchus mykiss) LC50: 14 - 18mL/L (96h, Oncorhynchus mykiss) LC50: =27540mg/L (96h, Lepomis macrochirus) LC50: =40761mg/L (96h, Oncorhynchus mykiss) LC50: 40000 - 60000mg/L (96h, Pimephales promelas) LC50: =16000mg/L (96h, Poecilia reticulata)	EC50: =46300mg/L (48h, Daphnia magna)
Proprietary component 1		LC50: =0.97mg/L (96h, Danio rerio)	

**Persistence/Degradability**

Not determined.

**Bioaccumulation**

There is no data for this product.

**Mobility**

Chemical name	Partition coefficient
Ethylene glycol 107-21-1	-1.36
Proprietary component 1	2.58

**Other adverse effects**

Not determined

**13. DISPOSAL CONSIDERATIONS****Waste Treatment Methods**

<b>Disposal of Wastes</b>	Disposal should be in accordance with applicable regional, national and local laws and regulations.
<b>Contaminated Packaging</b>	Disposal should be in accordance with applicable regional, national and local laws and regulations.

**14. TRANSPORT INFORMATION**

**Note** Please see current shipping paper for most up to date shipping information, including exemptions and special circumstances.

**DOT** Not regulated

**IATA** Not regulated

**IMDG** Not regulated

**15. REGULATORY INFORMATION****International Inventories**

Chemical name	TSCA	TSCA Inventory Status	DSL/NDSL	EINECS/ELINCS	ENCS	IECSC	KECL	PICCS	AICS
Ethylene glycol	X	ACTIVE	X	X	X	X	X	X	X
Disodium octaborate tetrahydrate	X					X		X	
Polyethylene glycol	X	ACTIVE	X	X	X	X	X	X	X
Proprietary component 1	X	ACTIVE	X	X	X	X	X	X	X

**Legend:**

**TSCA** - United States Toxic Substances Control Act Section 8(b) Inventory

**DSL/NDSL** - Canadian Domestic Substances List/Non-Domestic Substances List

**EINECS/ELINCS** - European Inventory of Existing Chemical Substances/European List of Notified Chemical Substances

**ENCS** - Japan Existing and New Chemical Substances

**IECSC** - China Inventory of Existing Chemical Substances

**KECL** - Korean Existing and Evaluated Chemical Substances

**PICCS** - Philippines Inventory of Chemicals and Chemical Substances

**AICS** - Australian Inventory of Chemical Substances

**US Federal Regulations****CERCLA**

Chemical name	Hazardous Substances RQs	CERCLA/SARA RQ	Reportable Quantity (RQ)
Ethylene glycol 107-21-1	5000 lb		RQ 5000 lb final RQ RQ 2270 kg final RQ

**SARA 311/312 Hazard Categories**

Acute health hazard	Yes
Chronic Health Hazard	Yes
Fire hazard	No
Sudden Release of Pressure Hazard	No
Reactive Hazard	No

**SARA 313**

Chemical name	CAS No	Weight-%	SARA 313 - Threshold Values %
Ethylene glycol - 107-21-1	107-21-1	10-15	1.0

**CWA (Clean Water Act)**

This product does not contain any substances regulated as pollutants pursuant to the Clean Water Act (40 CFR 122.21 and 40 CFR 122.42)

**US State Regulations****California Proposition 65**

This product contains the following Proposition 65 chemicals.

Chemical name	California Proposition 65
Ethylene glycol - 107-21-1	Developmental

**U.S. State Right-to-Know Regulations**

Chemical name	New Jersey	Massachusetts	Pennsylvania
Ethylene glycol 107-21-1	X	X	X
Disodium octaborate tetrahydrate 12280-03-4	X		

**EPA Pesticide Registration Number** EPA Reg. No 64405-5**EPA Statement**

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:

**EPA Pesticide Label**

Please see EPA label for additional information

**Difference between SDS and EPA pesticide label**

Please see EPA label for additional information



<b>16. OTHER INFORMATION</b>
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<b><u>NFPA</u></b>	Health hazards 2	Flammability 1	Instability 0	Special hazards -
<b><u>HMIS</u></b>	Health hazards 2	Flammability 1	Physical hazards 0	Personal Protection Not determined

**Issue Date:** 01-Aug-2022  
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**Revision Note:** Regulatory update

**Disclaimer**

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