



PenaShield® Safety Data Sheet

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Version 1

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

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

Acute toxicity - Oral	Category 4
Reproductive toxicity	Category 2
Specific target organ toxicity (repeated exposure)	Category 2

Signal Word

Warning

Hazard statements

Harmful if swallowed
Suspected of damaging fertility or the unborn child
May cause damage to organs through prolonged or repeated exposure



Precautionary Statements - Prevention

Obtain special instructions before use
 Do not handle until all safety precautions have been read and understood
 Use personal protective equipment as required
 Wash face, hands and any exposed skin thoroughly after handling
 Do not eat, drink or smoke when using this product
 Do not breathe dust/fume/gas/mist/vapors/spray

Precautionary Statements - Response

If exposed or concerned: Get medical advice/attention
 IF SWALLOWED: Call a POISON CENTER or doctor/physician if you feel unwell
 Rinse mouth

Precautionary Statements - Storage

Store locked up

Precautionary Statements - Disposal

Dispose of contents/container to an approved waste disposal plant

3. COMPOSITION/INFORMATION ON INGREDIENTS

Chemical name	CAS No	Weight-%
Ethylene glycol	107-21-1	10-20
Disodium octaborate tetrahydrate	12280-03-4	8.5

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

Eye Contact	Flush victim's eyes with large quantities of water, while holding the eyelids apart. Get medical attention if irritation develops or persists.
Skin Contact	Wash skin thoroughly with soap and water. Get medical attention if irritation develops. Remove and launder clothing before re-use.
Inhalation	Remove victim to fresh air. If breathing is difficult or irritation persists, get medical attention.
Ingestion	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

Symptoms	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 ³ inhalable particulate matter, aerosol only TWA: 25 ppm vapor fraction	(vacated) Ceiling: 50 ppm (vacated) Ceiling: 125 mg/m ³	-
Disodium octaborate tetrahydrate 12280-03-4	STEL: 6 mg/m ³ inhalable particulate matter TWA: 2 mg/m ³ 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

Physical state	Liquid	Odor	No odor
Appearance	Clear liquid	Odor Threshold	Not determined
Color	Not determined		

<u>Property</u>	<u>Values</u>	<u>Remarks • Method</u>
pH	6.8-7.0	
Melting point / freezing point	Not determined	
Boiling point / boiling range	>100 °C / >212 °F	
Flash point	Not determined	
Evaporation Rate	Not determined	
Flammability (Solid, Gas)	Liquid-Not applicable	
Flammability Limit in Air		
Upper flammability or explosive limits	Not determined	
Lower flammability or explosive limits	Not determined	
Vapor Pressure	Negligible	
Vapor Density	Not determined	
Relative Density	1.06	
Water Solubility	100%	
Solubility in other solvents	Not determined	

<u>Property</u>	<u>Values</u>	<u>Remarks • Method</u>
Partition Coefficient	Not determined	
Autoignition temperature	Not determined	
Decomposition temperature	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	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)	-
Disodium octaborate tetrahydrate 12280-03-4	= 2500 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

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

Oral LD50	2,000 mg/kg
Dermal LD50	53,000.00 mg/kg
ATEmix (inhalation-dust/mist)	7.50 mg/L

12. ECOLOGICAL INFORMATION

Ecotoxicity

The product is not classified as environmentally hazardous. However, this does not exclude the possibility that large or frequent spills can have a harmful or damaging effect on the environment.

Component Information

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

Persistence/Degradability

Not determined.

Bioaccumulation

There is no data for this product.

Mobility

Chemical name	Partition coefficient
Ethylene glycol 107-21-1	-1.93

Other Adverse Effects

Not determined

13. DISPOSAL CONSIDERATIONS

Waste Treatment Methods**Disposal of Wastes**

Disposal should be in accordance with applicable regional, national and local laws and regulations.

Contaminated Packaging 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	

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

Section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 (SARA). This product contains a chemical or chemicals which are subject to the reporting requirements of the Act and Title 40 of the Code of Federal Regulations, Part 372

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

16. OTHER INFORMATION

<u>NFPA</u>	Health Hazards	Flammability	Instability	Special Hazards
	2	1	0	Not determined
<u>HMIS</u>	Health Hazards	Flammability	Physical hazards	Personal Protection
	2	1	0	Not determined

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Disclaimer

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.



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