



Product Name: Purate
Date: 6/11/2015

SECTION 1 IDENTIFICATION

Supplier:	Nisus Corporation 100 Nisus Drive Rockford, TN 37853 (800) 264-0870	Distributor:	Phoenix Products Company 55 Container Drive Terryville, CT 06786 (860) 589-7502
U.S. PERS Emergency Telephone:	1-800-633-8253		
Product Name:	Purate		
Synonyms:	Boric acid(H2B8O13), disodium salt, tetrahydrate; Tim-Bor; Polybor		
Chemical Name:	Disodium Octaborate Tetrahydrate		
Chemical Formula:	B ₈ Na ₂ O ₁₃ · 4H ₂ O		
CAS Number:	12280-03-4		

SECTION 2 COMPOSITION/INFORMATION ON INGREDIENTS

GHS Classification:

Health
Reproductive Toxicity Category 2

GHS Label Elements:



Signal Word: Warning!

Statements of Hazard

H303: May be harmful if swallowed.
H361: Suspected of damaging fertility or the unborn child.

Precautionary Statements

P202: Do not handle until all safety precautions have been read and understood.
P308+P313: If exposed or concerned: Get medical advice/attention.
P501: Dispose of contents/container in accordance with local regulation.

SECTION 3 HAZARDOUS COMPONENTS

<u>Component</u>	<u>CAS Number</u>	<u>Percent</u>
Disodium Octaborate Tetrahydrate	12280-03-4	47.6%
Non-Hazardous Ingredients	Proprietary*	52.4%

*The exact formulation is being withheld as a trade secret.



SECTION 4 *FIRST-AID MEASURES*

Eye: Flush victim's eyes with large quantities of water, while holding the eyelids apart. Get medical attention if irritation develops or persists.

Skin: Wash skin thoroughly with soap and water. Get medical attention if irritation develops. Remove and launder clothing before re-use.

Ingestion: If large amounts are swallowed, immediately 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 told to do so by the poison control center or doctor. Do not give anything by mouth to an unconscious person. Have the product container or label with you when calling a poison control center or doctor, or going for treatment.

Inhalation: Move victim to fresh air. If breathing is difficult or irritation persists, get medical attention.

Most important Symptoms: May cause eye and skin irritation. Inhalation of mists may cause mild mucous membrane and respiratory irritation.

Indication of immediate medical attention/special treatment: Immediate medical attention is required for large ingestions.

SECTION 5 *FIRE FIGHTING MEASURES*

Suitable (and Unsuitable) Extinguishing Media: Use media appropriate for surrounding fire. Cool fire exposed containers and structures with water.

Specific hazards arising from the chemical: A solid stream of water or foam directed into hot, burning liquids can cause frothing. Burning may product carbon monoxide and carbon dioxide.

Special Protective Equipment and Precautions for Fire-Fighting Instructions: Firefighters should wear positive pressure self-contained breathing apparatus and full protective clothing. Contain all runoff.

SECTION 6 *ACCIDENTAL RELEASE MEASURES*

Personal Precautions, Protective Equipment, and Emergency Procedures: Evacuate spill area and keep unprotected personnel away. Wear appropriate protective clothing as described in Section 8. Avoid releases to the environment.

Methods and Materials for Containment and Cleaning 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.

SECTION 7 *HANDLING AND STORAGE*

Precautions for 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 and wash before reuse. 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: Store in a cool, dry (preferably locked) storage area inaccessible to children and pets. Do not freeze.

SECTION 8 EXPOSURE CONTROL/PERSONAL PROTECTION

Exposure Guidelines:

Disodium Octaborate Tetrahydrate	2 mg/m ³ TWA ACGIH TLV (Inhalable) 6 mg/m ³ STEL ACGIH TLV (Inhalable)
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Engineering Controls: Use with adequate general or local exhaust ventilation to maintain exposure levels below the occupational exposure limits.

Respiratory Protection: In operations where exposure levels are exceeded, a NIOSH approved respirator with dust/mist cartridges 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.

Skin Protection: Wear impervious gloves such as butyl rubber, nitrile or neoprene.

Eye Protection: Wear safety goggles or glasses where splashing is possible.

Other: Wear long-sleeve shirts, long pants, socks and shoes when using this product. Suitable washing facilities should be available in the work area.

SECTION 9 PHYSICAL AND CHEMICAL PROPERTIES

Appearance And Odor:	White opaque liquid with no odor.
Odor Threshold:	Not established
Vapor Density:	N/A
Initial Boiling Point/Range:	>212°F (>100°C)
Solubility In Water:	Soluble
Vapor Pressure:	Same as water
Relative Density:	1.2
Evaporation Rate:	Not determined
Melting/Freezing Point:	Not determined
pH:	6.9-8.0 (50% solution in water)
Percent Volatile:	36% by weight
Octanol/Water Coefficient:	Not determined
Decomposition Temperature:	Not determined
Viscosity:	Not determined
Flammability (solid, gas):	N/A
Flashpoint:	None
Autoignition Temperature:	None
Flammable Limits:	LEL: Not determined UEL: Not determined

SECTION 10 STABILITY AND REACTIVITY

Reactivity: Not normally reactive

Chemical Stability: Stable under normal storage and handling conditions.

Possibility of Hazardous Reactions: None known.

Conditions to Avoid: None known.

Incompatible Materials: Avoid strong oxidizing agents.



Hazardous Decomposition Products: When heated to decomposition emits carbon monoxide and carbon dioxide.

SECTION 11 **TOXICOLOGICAL INFORMATION**

HEALTH HAZARDS:

Ingestion: Harmful if swallowed. Repeated or high levels of ingestion may cause potentially fatal kidney damage.

Inhalation: Inhalation of mists may cause irritation of the nose, throat and upper respiratory tract.

Eye: May cause slight irritation with redness, pain and tearing. Product was not irritating in a study with rabbits.

Skin: May cause irritation on prolonged or repeated contact. Product was not irritating in a study with rabbits. Negative in a guinea pig sensitization study.

Chronic: Borates have been shown to have some chronic toxicity in animals fed high doses over long periods, similar to that of alcohol, but this has not been found in humans.

Sensitization: This material is not known to cause sensitization.

Carcinogenicity: None of the components is listed as a carcinogen or suspected carcinogen by IARC, NTP or OSHA.

Germ Cell Mutagenicity: No data available

Reproductive Toxicity: Borates have been found to have some reproductive toxicity in animals, but this has not been found in humans.

Numerical Measures of Toxicity:

Product Toxicity Data:

Oral rat LD₅₀: >5000 mg/kg; Dermal rabbit LC₅₀: >5050 mg/kg

Component Toxicity Data:

Disodium Octaborate Tetrahydrate: Oral rat LD₅₀: 3500-4100 mg/kg; Dermal rabbit LD₅₀: >2000 mg/kg; Inhalation rat LC₅₀: >2.0 mg/L

SECTION 12 **ECOLOGICAL INFORMATION**

Ecotoxicity:

Disodium Octaborate Tetrahydrate: EC₁₀ Green algae: 24 mg B/L/96 hr; LC₅₀ Daphnia Magna: 133 mg B/L/48 hr; NOEC-LOEC Daphnia Magna: 6-13 mg B/L/21-day; LC₅₀ Limanda limanda: 74 mg B/L/96 hr; LC₅₀ Rainbow Trout: 150 mg B/L/24-day, 100 mg B/L/32-day; LC₅₀ Goldfish: 46 mg B/L/7-day, 178 mg B/L/3-day

Persistence and Degradability: Disodium Octaborate Tetrahydrate degrades to boron.

Bioaccumulative Potential: Disodium Octaborate Tetrahydrate: Log K_{ow}: -0.7570 at 25°C.

Mobility in Soil: Disodium Octaborate Tetrahydrate is soluble in water and is leachable through normal soil.

Other Adverse Effects: Some plants are sensitive to boron. Avoid releases the environment.

SECTION 13 **DISPOSAL CONSIDERATIONS**



Dispose in accordance with local, state and federal environmental regulations. If container is empty: do not reuse this container. Place in trash or offer for recycling if available. If partly filled: Call your local solid waste agency for disposal instructions. Never place unused product into any indoor or outdoor drain.

SECTION 14 *TRANSPORT INFORMATION*

DOT Hazardous Materials Description: Not Regulated (unless package contains a reportable quantity)

SECTION 15 *REGULATORY INFORMATION*

CERCLA: This product is not subject to reporting under CERCLA. Some states have more stringent reporting requirements. Report all spills in accordance with local, state, and federal regulations.

SARA Hazard Category (311/312): Not Hazardous

SARA 313: This product contains the following chemicals subject to Annual Release Reporting Requirements Under SARA Title III, Section 313 (40 CFR 372): None

EPA TSCA Inventory: All of the ingredients in this product are TSCA compliant.

SECTION 16 *OTHER INFORMATION*

NFPA Rating:

Health = 1 Flammability = 0 Instability = 0

HMIS Rating:

Health = 1 Flammability = 0 Physical Hazard = 0

No representations or warranties, either expressed or implied, of merchant ability, fitness for a particular purpose or any other nature are made hereunder with respect to information or the product to which the information refers.

Date: 6/11/2015
Phoenix Products Company