



SAFETY DATA SHEET
Borate Plus - 3520

Product Name: Borate Plus
Date: 7/10/2015

SECTION 1 **IDENTIFICATION**

Supplier: Phoenix Products Company
55 Container Drive
Terryville, CT 06786
(860) 589-7502

Distributor:

U.S. PERS Emergency Telephone: 1-800-633-8253

Product Name: **Borate Plus**

Synonyms: Orthoboric Acid
Boric Acid

Chemical Name: Boric Acid

Chemical Formula: BH_3O_3

CAS Number: 10043-35-3

Product Use: Improves oxidizer performance. Provides exceptional buffering capacity. Makes water feel soft. Reduces red eye and skin irritation, improving swimmer comfort. Cures cloudy water improving water sparkle.

SECTION 2 **HAZARDS IDENTIFICATION**

Emergency Overview

OSHA Regulatory Status: This product is not considered hazardous by the 2012 OSHA Hazard Communication Standard (29 CFR 1910.122). Not a dangerous substance or mixture according to the Globally Harmonized System (GHS).

POTENTIAL HEALTH EFFECTS (See section 11 for additional information)

Primary Route(s) of Exposure: Skin contact, eye contact and inhalation.

Acute Exposure

Inhalation: Inhalation may cause discomfort and/or irritation of the respiratory system.

Skin Contact: This product causes moderate skin irritation.

Eye Contact: This product causes eye irritation

Ingestion: This product is expected to have a low order of acute toxicity.

Carcinogenicity: IARC, NTP, ACGIH and OSHA do not classify this material as a carcinogen or suspect carcinogen. However, nitrotriacetic acid (NTA) and its salts were determined to be "possibly carcinogenic to humans" (Group 2B) by IARC, a compound which "may reasonably be anticipated to be a carcinogen" by NTP and "select carcinogen" by OSHA.

Medical conditions aggravated: There are no data available that address medical conditions that are generally recognized as being aggravated by exposure to this product.

POTENTIAL ENVIRONMENTAL EFFECTS (See section 12 for additional information)

This product is not expected to be harmful to aquatic life, based on data with related products.

SECTION 3 **COMPOSITION/INFORMATION ON INGREDIENTS**

Component	CAS Number	Percent
Boric Acid	10043-35-3	95%
Sodium Tetraborate Decahydrate	1303-96-4	5%



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SECTION 4 **FIRST-AID MEASURES**

General Advice: Move out of dangerous area. Consult a physician. Show this safety data sheet to the doctor in attendance.

Inhalation: If breathed in, move person into fresh air. If not breathing, give artificial respiration. Consult a physician.

Skin Contact: Wash off with soap and plenty of water. Consult a physician.

Eye Contact: Flush eyes with water as a precaution.

Ingestion: Never give anything by mouth to an unconscious person. Rinse mouth with water. Consult a physician.

SECTION 5 **FIRE FIGHTING MEASURES**

Extinguishing Media

Suitable Extinguishing Media: Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide.

Special hazards arising from the substance or mixture: Borane/boron oxides

Advice for firefighters: Wear self-contained breathing apparatus for firefighting if necessary.

SECTION 6 **ACCIDENTAL RELEASE MEASURES**

Personal precautions, protective equipment and emergency procedures: Use personal protective equipment. Avoid dust formation. Avoid breathing vapors, mist or gas. Ensure adequate ventilation. Evacuate personnel to safe areas. Avoid breathing dust.

Environmental precautions: Prevent further leakage or spillage if safe to do so. Do not let product enter drains.

Methods and materials for containment and cleaning up: Pick up and arrange disposal without creating dust. Sweep up and shovel. Keep in suitable, closed containers for disposal.

SECTION 7 **HANDLING AND STORAGE**

Precautions for Safe Handling: Avoid formation of dust and aerosols. Provide appropriate exhaust ventilation at places where dust is formed.

Conditions for safe storage, including any incompatibilities: Keep container tightly closed in a dry and well-ventilated place. Moisture sensitive.

SECTION 8 **EXPOSURE CONTROL/PERSONAL PROTECTION**

Components with workplace control parameters

Component	CAS-No.	Value	Control Parameters	Basis
Boric Acid	10043-35-3	TWA	2.000000 mg/m ³	USA. ACGIH Threshold Limit Values (TLV)
		Remarks	Upper Respiratory Tract Irritation. Not classifiable as a human carcinogen. Varies.	
		STEL	6.000000 mg/m ³	USA. ACGIH Threshold Limit Values (TLV)
		Remarks	Upper Respiratory Tract Irritation. Not classifiable as a human carcinogen. Varies.	
		TWA	2.000000 mg/m ³	USA. ACGIH Threshold Limit Values (TLV)
		Remarks	Upper Respiratory Tract Irritation. Not classifiable as a human carcinogen. Varies.	
		TWA	2.000000 mg/m ³	USA. ACGIH Threshold Limit Values (TLV)
		Remarks	Upper Respiratory Tract Irritation. Not classifiable as a human carcinogen. Varies.	
		STEL	6.000000 mg/m ³	USA. ACGIH Threshold Limit Values (TLV)
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		STEL	6.000000 mg/m ³	USA. ACGIH Threshold Limit Values (TLV)
		Remarks	Upper Respiratory Tract Irritation. Not classifiable as a human carcinogen. Varies.	
Sodium Tetraborate Decahydrate	1303-96-4	STEL	6 mg/m ³	ACGIH
		TLV-TWA	2 mg/m ³	ACGIH
		TWA	10 mg/m ³	OSHA

Appropriate Engineering Controls: Handle in accordance with good industrial hygiene and safety practice. Wash hands before breaks and at the end of workday.

Personal Protective Equipment

Eye/Face Protection: Safety glasses with side-shields conforming to EN166 Use equipment for eye protection tested and approved under appropriate government standards such as NIOSH (US) or EN 166(EU).

Skin Protection: Handle with gloves. Gloves must be inspected prior to use. Use proper glove removal technique (without touching glove's outer surface) to avoid skin contact with this product. Dispose of contaminated gloves after use in accordance with applicable laws and good laboratory practices. Wash and dry hands.

Body Protection: Impervious clothing, The type of protective equipment must be selected according to the concentration and amount of the dangerous substance at the specific workplace.

Respiratory Protection: Where risk assessment shows air-purifying respirators are appropriate use a full-face particle respirator type N100 (US) or type P3 (EN 143) respirator cartridges as a backup to engineering controls. If the respirator is the sole means of protection, use a full-face supplied air respirator. Use respirators and components tested and approved under appropriate government standards such as NIOSH (US) or CEN (EU).

Control of Environmental Exposure: Prevent further leakage or spillage if safe to do so. Do not let product enter drains.



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SECTION 9 **PHYSICAL AND CHEMICAL PROPERTIES**

Appearance:	White Solid. (Powdered solid.)
Odor:	Odorless
Molecular Weight:	61.83 g/mole
pH (1% soln/water):	5.2
Boiling Point:	300°C (572°F)
Melting Point:	169°C (336.2°F)
Critical Temperature:	Not available.
Specific Gravity:	1.435 (Water = 1) V
Vapor Pressure:	3.5 hPa (2.6 mmHg) at 20 °C (68 °F)
Vapor Density:	Not available.
Volatility:	Not available.
Odor Threshold:	Not available.
Water/Oil Dist. Coeff.:	Not available.
Ionicity (in Water):	Not available.
Dispersion Properties:	See solubility in water & methanol.
Solubility:	Soluble in hot water, methanol. Partially soluble in cold water. Slightly soluble in acetone.

SECTION 10 **STABILITY AND REACTIVITY**

Reactivity: No data available.
Chemical Stability: Stable under recommended storage conditions.
Possibility of Hazardous Reactions: No data available
Conditions to Avoid: Exposure to moisture
Incompatible Materials: Potassium, Acid anhydrides

SECTION 11 **TOXICOLOGICAL INFORMATION**

Acute Toxicity

LD50 Oral: Rat - 2,660 mg/kg

Inhalation: No data available.

Dermal: No data available.

Skin Corrosion/Irritation: No data available.

Serious Eye Damage/Irritation: No data available.

Respiratory or Skin Sensitization: No data available.

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.

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.

OSHA: No component of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by OSHA.



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Reproductive Toxicity: In animal testing, risk of impaired fertility was shown only after administration of very high doses of this substance.

Specific target organ toxicity - single exposure: No data available.

Specific target organ toxicity - repeated exposure: No data available.

Aspiration Hazard: No data available.

SECTION 12 *ECOLOGICAL INFORMATION*

Toxicity

Toxicity to fish: LC50 - *Ptychocheilus lucius* - 279 mg/l - 96 h
LC50 - *Lepomis macrochirus* (Bluegill) - > 1,021 mg/l - 96 h

Toxicity to daphnia and other aquatic invertebrates:

LC50 - *Daphnia magna* (Water flea) - 53.2 mg/l - 21 d
EC50 - *Daphnia magna* (Water flea) - 133 mg/l - 48 h

Persistence and Degradability: No data available

Bioaccumulative Potential: No data available

Mobility in Soil: No data available

Results of PBT and vPvB Assessment: PBT/vPvB assessment not available as chemical safety assessment not required/not conducted.

SECTION 13 *DISPOSAL CONSIDERATIONS*

Product: Contact a licensed professional waste disposal service to dispose of this material. Dissolve or mix the material with a combustible solvent and burn in a chemical incinerator equipped with an afterburner and scrubber. Offer surplus and non-recyclable solutions to a licensed disposal company.

Contaminated Packaging: Dispose of as unused product.

SECTION 14 *TRANSPORT INFORMATION*

DOT: Not Regulated.

IMDG: Not Regulated.

IATA: Not Regulated.

SECTION 15 *REGULATORY INFORMATION*

SARA 302 Components: No chemicals in this material are subject to the reporting requirements of SARA Title III, Section 302.

SARA 313 Components: 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.

Massachusetts Right To Know Components:	CAS-No.	Revision Date
Sodium tetraborate decahydrate	1303-96-4	1993-04-24

Pennsylvania Right To Know Components:	CAS-No.	Revision Date
Boric acid	10043-35-3	2009-07-17
Sodium tetraborate decahydrate	1303-96-4	1993-04-24



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New Jersey Right To Know Components:	CAS-No.	Revision Date
Boric acid	10043-35-3	2009-07-17
Sodium tetraborate decahydrate	1303-96-4	1993-04-24

California Prop. 65 Components: This product does not contain any chemicals known to State of California to cause cancer, birth defects, or any other reproductive harm.

SECTION 16 *OTHER INFORMATION*

HMIS RATING – Health: 1 Flammability: 0 Physical Hazards: 0 Other: none
NFPA RATING – Health: 0 Fire Hazard: 0 Reactivity Hazard: 0
[0 – Minimal 1 – Slight 2 – Moderate 3 – High 4 – Extreme * - Chronic Health Hazard (see Section 11)]

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: 7/10/2015
Phoenix Products Company