



# MATERIAL SAFETY DATA SHEET

## 1. Product and Company Identification

**Product Name** Foundation  
**CAS #** Mixture  
**Product use** Maintenance treatment for swimming pool water  
**Manufacturer** Natural Chemistry, LLC  
40 Richards Ave.  
Norwalk, CT 06854 US  
Phone: (800) 753-1233  
Emergency Phone: CHEMTREC (800) 424-9300

## 2. Hazards Identification

**Emergency overview** WARNING  
MAY CAUSE EYE IRRITATION. MAY CAUSE SKIN IRRITATION.

**Potential short term health effects**

**Routes of exposure** Eye, Skin contact, Inhalation, Ingestion.

**Eyes** May cause irritation.

**Skin** Prolonged or repeated skin contact may result in redness, burning sensation or dermatitis.

**Inhalation** Dusts of this product may cause irritation of the nose, throat, and respiratory tract.

**Ingestion** Harmful if swallowed. May cause stomach distress, nausea or vomiting.

**Target organs** Eyes. Skin. Respiratory system. Kidney. Liver.

**Chronic effects** Prolonged or repeated overexposure can cause liver and kidney damage.

**Signs and symptoms** Symptoms may include redness, edema, drying, defatting and cracking of the skin. Symptoms of overexposure may be headache, dizziness, tiredness, nausea and vomiting.

**OSHA Regulatory Status** This product is a "Hazardous Chemical" as defined by the OSHA Hazard Communication Standard, 29 CFR 1910.1200.

**Potential environmental effects** See section 12.

## 3. Composition / Information on Ingredients

Ingredient(s)	CAS #	Percent
Boric acid	10043-35-3	60 - 100
Citric acid	77-92-9	5 - 10
Lanthanum sulfate	10099-60-2	1 - 5

## 4. First Aid Measures

**First aid procedures**

**Eye contact** Immediately flush with cool water. Remove contact lenses, if applicable, and continue flushing for 15 minutes. Obtain medical attention if irritation develops or persists.

**Skin contact** Brush away excess of dry material. Flush with water. Obtain medical attention if irritation persists.

**Inhalation** If symptoms develop move victim to fresh air. If symptoms persist, obtain medical attention.

**Ingestion** Do not induce vomiting. Never give anything by mouth if victim is unconscious, or is convulsing. Obtain medical attention.

**Notes to physician** Symptoms may be delayed.

**General advice** If you feel unwell, seek medical advice (show the label where possible). Ensure that medical personnel are aware of the material(s) involved, and take precautions to protect themselves. Show this safety data sheet to the doctor in attendance. Avoid contact with eyes and skin. Keep out of reach of children.

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## 5. Fire Fighting Measures

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<b>Flammable properties</b>	Not flammable by WHMIS/OSHA criteria.
<b>Extinguishing media</b>	
<b>Suitable extinguishing media</b>	Treat for surrounding material.
<b>Unsuitable extinguishing media</b>	Not available
<b>Protection of firefighters</b>	
<b>Specific hazards arising from the chemical</b>	Not available
<b>Protective equipment for firefighters</b>	Firefighters should wear full protective clothing including self contained breathing apparatus.
<b>Hazardous combustion products</b>	May include and are not limited to: Oxides of carbon. Oxides of nitrogen. Oxides of boron. Oxides of sulphur.
<b>Explosion data</b>	
<b>Sensitivity to mechanical impact</b>	Not available
<b>Sensitivity to static discharge</b>	Not expected to be sensitive to static discharge.

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## 6. Accidental Release Measures

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<b>Personal precautions</b>	Keep unnecessary personnel away. Do not touch or walk through spilled material. Do not touch damaged containers or spilled material unless wearing appropriate protective clothing. Keep people away from and upwind of spill/leak.
<b>Environmental precautions</b>	Prevent entry into waterways, sewers, basements or confined areas.
<b>Methods for containment</b>	Stop the flow of material, if this is without risk.
<b>Methods for cleaning up</b>	Before attempting clean up, refer to hazard data given above. Use broom or dry vacuum to collect material for proper disposal without raising dust. Rinse area with water. Prevent large spills from entering sewers or waterways. Contact emergency services and supplier for advice.

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## 7. Handling and Storage

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<b>Handling</b>	Use good industrial hygiene practices in handling this material. Avoid contact with eyes and skin. Avoid breathing dust. Wash thoroughly after handling.
<b>Storage</b>	Keep out of reach of children. Store in a closed container away from incompatible materials.

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## 8. Exposure Controls / Personal Protection

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<b>Exposure limits</b>	
<b>Ingredient(s)</b>	<b>Exposure Limits</b>
Boric acid	<b>ACGIH-TLV</b> TWA: 2 mg/m3 STEL: 6 mg/m3 <b>OSHA-PEL</b> Not established
Citric acid	<b>ACGIH-TLV</b> TWA: 10 mg/m3 <b>OSHA-PEL</b> TWA: 10 mg/m3
Lanthanum sulfate	<b>ACGIH-TLV</b> Not established <b>OSHA-PEL</b> Not established

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<b>Engineering controls</b>	General ventilation normally adequate. Local exhaust is suggested for use, where possible, in enclosed or confined spaces.
<b>Personal protective equipment</b>	
<b>Eye / face protection</b>	Wear safety glasses with side shields.
<b>Hand protection</b>	Rubber gloves. Confirm with a reputable supplier first.
<b>Skin and body protection</b>	Rubber apron recommended. As required by employer code.
<b>Respiratory protection</b>	Where exposure guideline levels may be exceeded, use an approved NIOSH respirator.
<b>General hygiene considerations</b>	Handle in accordance with good industrial hygiene and safety practice. When using do not eat or drink. Wash hands before breaks and immediately after handling the product.

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## 9. Physical and Chemical Properties

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<b>Appearance</b>	Solid.
<b>Color</b>	White
<b>Form</b>	Powder
<b>Odor</b>	Odorless
<b>Odor threshold</b>	Not available
<b>Physical state</b>	Solid
<b>pH</b>	2.5 - 3.5
<b>Melting point</b>	Not available
<b>Freezing point</b>	Not available
<b>Boiling point</b>	Not available
<b>Pour point</b>	Not available
<b>Evaporation rate</b>	Not available
<b>Flash point</b>	Not available
<b>Auto-ignition temperature</b>	Not available
<b>Flammability limits in air, lower, % by volume</b>	Not applicable
<b>Flammability limits in air, upper, % by volume</b>	Not available
<b>Vapor pressure</b>	Not available
<b>Vapor density</b>	Not available
<b>Specific gravity</b>	Not available
<b>Relative density</b>	53.15
<b>Octanol/water coefficient</b>	Not available
<b>Solubility (H2O)</b>	Moderate
<b>Percent volatile</b>	Not available

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## 10. Stability and Reactivity

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<b>Reactivity</b>	Reacts vigorously with alkaline material.
<b>Possibility of hazardous reactions</b>	Hazardous polymerization does not occur.
<b>Chemical stability</b>	Stable under recommended storage conditions.
<b>Conditions to avoid</b>	Do not mix with other chemicals.
<b>Incompatible materials</b>	Caustics. Oxidizers. Reducing agents.
<b>Hazardous decomposition products</b>	May include and are not limited to: Oxides of carbon. Oxides of nitrogen. Oxides of boron. Oxides of sulphur.

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## 11. Toxicological Information

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### Component analysis - LC50

Ingredient(s)	LC50
Boric acid	3450 mg/kg mouse
Citric acid	Not available
Lanthanum sulfate	Not available

## Component analysis - Oral LD50

Ingredient(s)	LD50
Boric acid	2660 mg/kg rat
Citric acid	5040 mg/kg mouse; 3000 mg/kg rat
Lanthanum sulfate	Not available

### Effects of acute exposure

<b>Eye</b>	May cause irritation.
<b>Skin</b>	Prolonged or repeated skin contact may result in redness, burning sensation or dermatitis.
<b>Inhalation</b>	Dusts of this product may cause irritation of the nose, throat, and respiratory tract.
<b>Ingestion</b>	Harmful if swallowed. May cause stomach distress, nausea or vomiting.
<b>Sensitization</b>	Non-hazardous by WHMIS/OSHA criteria.
<b>Chronic effects</b>	Prolonged or repeated overexposure can cause liver and kidney damage.
<b>Carcinogenicity</b>	Non-hazardous by WHMIS/OSHA criteria.
<b>ACGIH - Threshold Limit Values - Carcinogens</b>	
Boric acid	10043-35-3 A4 - Not Classifiable as a Human Carcinogen (listed under Borate compounds, inorganic)
<b>Mutagenicity</b>	Non-hazardous by WHMIS/OSHA criteria.
<b>Reproductive effects</b>	Borates may cause harmful reproductive effects based on animal data. Boric acid may cause developmental changes based on published data, at doses many times in excess of those that could occur through inhalation of dust in occupational settings.
<b>Teratogenicity</b>	Non-hazardous by WHMIS/OSHA criteria.
<b>Name of Toxicologically Synergistic Products</b>	Not available

## 12. Ecological Information

**Ecotoxicity** Components of this product have been identified as having potential environmental concerns.

### Ecotoxicity - Freshwater Fish - Acute Toxicity Data

Boric acid	10043-35-3	72 Hr LC50 Carassius auratus: 1020 mg/L [flow-through]
Citric acid	77-92-9	96 Hr LC50 Lepomis macrochirus: 1516 mg/L [static]

### Ecotoxicity - Water Flea - Acute Toxicity Data

Boric acid	10043-35-3	48 Hr EC50 Daphnia magna: 115 - 153 mg/L
Citric acid	77-92-9	72 Hr EC50 Daphnia magna: 120 mg/L

<b>Persistence / degradability</b>	Not available
<b>Bioaccumulation / accumulation</b>	Not available
<b>Mobility in environmental media</b>	Not available
<b>Environmental effects</b>	Not available
<b>Aquatic toxicity</b>	Not available
<b>Partition coefficient</b>	Not available
<b>Chemical fate information</b>	Not available
<b>Other adverse effects</b>	Not available

## 13. Disposal Considerations

<b>Disposal instructions</b>	Review federal, state/provincial, and local government requirements prior to disposal.
<b>Waste from residues / unused products</b>	Not available
<b>Contaminated packaging</b>	Not available

## 14. Transport Information

### U.S. Department of Transportation (DOT)

Not regulated as dangerous goods.

### Transportation of Dangerous Goods (TDG - Canada)

Not regulated as dangerous goods.

## 15. Regulatory Information

**Canadian federal regulations** This product has been classified in accordance with the hazard criteria of the Controlled Products Regulations and the MSDS contains all the information required by the Controlled Products Regulations.

**Canada - WHMIS - Ingredient Disclosure List**

Boric acid	10043-35-3	1 %
Citric acid	77-92-9	1 %

**WHMIS status** Controlled  
**WHMIS classification** Class D - Division 2A, 2B  
**WHMIS labeling**



**Occupational Safety and Health Administration (OSHA)**

**29 CFR 1910.1200 hazardous chemical** Yes

**US Federal regulations** This product is a "Hazardous Chemical" as defined by the OSHA Hazard Communication Standard, 29 CFR 1910.1200.

**CERCLA (Superfund) reportable quantity**  
None

**Superfund Amendments and Reauthorization Act of 1986 (SARA)**

**Hazard categories** Immediate Hazard - Yes  
 Delayed Hazard - Yes  
 Fire Hazard - No  
 Pressure Hazard - No  
 Reactivity Hazard - No

**Section 302 extremely hazardous substance** No

**Section 311 hazardous chemical** Yes

**Clean Air Act (CAA)** Not available

**Clean Water Act (CWA)** Not available

**State regulations** This product does not contain a chemical known to the State of California to cause cancer, birth defects or other reproductive harm.

**Inventory name**

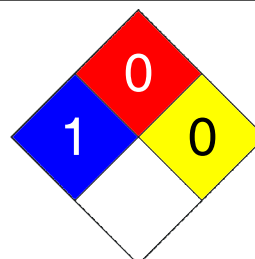
Country(s) or region	Inventory name	On inventory (yes/no)*
Canada	Domestic Substances List (DSL)	No
Canada	Non-Domestic Substances List (NDSL)	Yes
United States & Puerto Rico	Toxic Substances Control Act (TSCA) Inventory	Yes

A "Yes" indicates that all components of this product comply with the inventory requirements administered by the governing country(s)

## 16. Other Information

LEGEND HMIS/NFPA	
Severe	4
Serious	3
Moderate	2
Slight	1
Minimal	0

Health	* 1
Flammability	0
Physical Hazard	0
Personal Protection	X



**Disclaimer**

Information contained herein was obtained from sources considered technically accurate and reliable. While every effort has been made to ensure full disclosure of product hazards, in some cases data is not available and is so stated. Since conditions of actual product use are beyond control of the supplier, it is assumed that users of this material have been fully trained according to the requirements of all applicable legislation and regulatory instruments. No warranty, expressed or implied, is made and supplier will not be liable for any losses, injuries or consequential damages which may result from the use of or reliance on any information contained in this document.

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**Other information** For an updated MSDS, please contact the supplier/manufacturer listed on the first page of the document.  
  
This MSDS conforms to the ANSI Z400.1/Z129.1-2010 Standard.