

**1. Identification of the Substance / Preparation and of the Company / Undertaking**

**Product Name** Crop Choice Boron 10%  
**Product Code** 57573  
**Recommended Use** Agricultural Applications or Further Manufacturing Use  
**Restrictions on Use** None known  
**Manufacturer**  
 SOIL SERVICE, INC.  
 2576 N County Road 1600 E.  
 Niota, IL 62358  
 1-888-313-2360  
**Emergency Telephone:**  
 CHEMTREC (US): 1-800-424-9300

**2. Hazards Identification**

**GHS - Classification**

Acute toxicity - Dermal	Category 4
Acute toxicity - Inhalation (Dusts/Mists)	Category 4
Skin corrosion/irritation	Category 1 Sub-category B
Serious eye damage/eye irritation	Category 1
Reproductive Toxicity:	Category 1B
Specific target organ toxicity (single exposure)	Category 3

**Hazards not otherwise classified (HNOC)**

Not applicable

**Label elements**



**Signal Word:** Danger

**Hazard Statements:**

- Harmful in contact with skin or if inhaled
- Causes severe skin burns and eye damage
- May damage fertility or the unborn child
- May cause respiratory irritation

**Precautionary Statements:**

- 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
- Use only outdoors or in a well-ventilated area
- Do not breathe dusts or mists
- Wash face, hands and any exposed skin thoroughly after handling
- IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing
- IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower
- Wash contaminated clothing before reuse
- IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing
- IF SWALLOWED: Rinse mouth. Do NOT induce vomiting
- Store locked up
- Store in a well-ventilated place. Keep container tightly closed

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- Dispose of contents/ container to an approved waste disposal plant

### 3. Composition / Information on Ingredients

Chemical name	CAS No.	Weight-%
Boric acid (H <sub>3</sub> BO <sub>3</sub> )	10043-35-3	57.6
Trade Secret	-	22.4
2-Aminoethanol	141-43-5	20

Any concentration shown as a range is due to batch variation or the exact percentage has been withheld as a trade secret.

### 4. First Aid Measures

#### Description of first aid measures

<b>General advice</b>	Show this safety data sheet to the doctor in attendance. Immediate medical attention is required.
<b>Inhalation</b>	Remove to fresh air. If breathing has stopped, give artificial respiration. Get medical attention immediately. Do not use mouth-to-mouth method if victim ingested or inhaled the substance; give artificial respiration with the aid of a pocket mask equipped with a one-way valve or other proper respiratory medical device. If breathing is difficult, (trained personnel should) give oxygen. Delayed pulmonary edema may occur. Get immediate medical advice/attention.
<b>Eye contact</b>	Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. Keep eye wide open while rinsing. Do not rub affected area. Remove contact lenses, if present and easy to do. Continue rinsing. Get immediate medical advice/attention.
<b>Skin contact</b>	Wash off immediately with soap and plenty of water while removing all contaminated clothes and shoes. Get immediate medical advice/attention.
<b>Ingestion</b>	Do NOT induce vomiting. Clean mouth with water and drink afterwards plenty of water. Never give anything by mouth to an unconscious person. Get immediate medical advice/attention.
<b>Self-protection of the first aider</b>	Ensure that medical personnel are aware of the material(s) involved, take precautions to protect themselves and prevent spread of contamination. Wear personal protective clothing (see section 8). Avoid contact with skin, eyes or clothing. Avoid direct contact with skin. Use barrier to give mouth-to-mouth resuscitation.

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

**Symptoms** Burning. Redness. May cause blindness. Coughing and/ or wheezing.

#### **Indication of any immediate medical attention and special treatment needed**

**Note to physicians** Product is a corrosive material. Use of gastric lavage or emesis is contraindicated. Possible perforation of stomach or esophagus should be investigated. Do not give chemical antidotes. Asphyxia from glottal edema may occur. Marked decrease in blood pressure may occur with moist rales, frothy sputum, and high pulse pressure.

### 5. Fire-fighting Measures

<b>Suitable Extinguishing Media</b>	Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.
<b>Large Fire</b>	CAUTION: Use of water spray when fighting fire may be inefficient.
<b>Unsuitable extinguishing media</b>	Do not scatter spilled material with high pressure water streams.
<b>Specific hazards arising from the chemical</b>	The product causes burns of eyes, skin and mucous membranes. Thermal decomposition can lead to release of irritating gases and vapors.
<b>Explosion Data</b>	
<b>Sensitivity to mechanical impact</b>	None.
<b>Sensitivity to static discharge</b>	None.
<b>Special protective equipment for fire-fighters</b>	Firefighters should wear self-contained breathing apparatus and full firefighting turnout gear. Use personal protection equipment.

### 6. Accidental Release Measures

**Personal precautions, protective equipment and emergency procedures**

**Personal precautions** Avoid contact with skin, eyes or clothing. Ensure adequate ventilation. Use personal protective equipment as required. Attention! Corrosive material. Evacuate personnel to safe areas. Keep people away from and upwind of spill/leak. Refer to protective measures listed in Sections 7 and 8.

**Other information**

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

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

**Methods for cleaning up** Dike far ahead of liquid spill for later disposal. Soak up with inert absorbent material. Pick up and transfer to properly labeled containers. Clean contaminated surface thoroughly. After cleaning, flush away traces with water.

**7. Handling and Storage**

**Precautions for safe handling**

**Advice on safe handling** Handle in accordance with good industrial hygiene and safety practice. Avoid contact with skin, eyes or clothing. In case of insufficient ventilation, wear suitable respiratory equipment. Handle product only in closed system or provide appropriate exhaust ventilation. Do not eat, drink or smoke when using this product. Take off contaminated clothing and wash before reuse. Remove contaminated clothing and shoes.

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

**Storage Conditions** Keep containers tightly closed in a dry, cool and well-ventilated place. Store locked up. Protect from moisture. Keep out of the reach of children. Store away from other materials. Keep from freezing.

**Incompatible materials** Acids. Bases. Oxidizing agent. Galvanized steel. Copper. Copper alloys.

**8. Exposure Controls / Personal Protection**

**Control parameters**

**Exposure Limits** The following ingredients are the only ingredients of the product above the cut-off level (or level that contributes to the hazard classification of the mixture) which have an exposure limit applicable in the region for which this safety data sheet is intended or other recommended limit. At this time, the other relevant constituents have no known exposure limits from the sources listed here.

Chemical name	ACGIH TLV	OSHA PEL	NIOSH IDLH
Boric acid (H <sub>3</sub> BO <sub>3</sub> ) 10043-35-3	STEL: 6 mg/m <sup>3</sup> inhalable particulate matter TWA: 2 mg/m <sup>3</sup> inhalable particulate matter	-	-
2-Aminoethanol 141-43-5	STEL: 6 ppm TWA: 3 ppm	TWA: 3 ppm TWA: 6 mg/m <sup>3</sup> (vacated) TWA: 3 ppm (vacated) TWA: 8 mg/m <sup>3</sup> (vacated) STEL: 6 ppm (vacated) STEL: 15 mg/m <sup>3</sup>	IDLH: 30 ppm TWA: 3 ppm TWA: 8 mg/m <sup>3</sup> STEL: 6 ppm STEL: 15 mg/m <sup>3</sup>

**Exposure Guidelines** Vacated limits revoked by the Court of Appeals decision in AFL-CIO v. OSHA, 965 F.2d 962 (11th Cir., 1992).

**Appropriate engineering controls**

**Engineering controls** Showers  
Eyewash stations  
Ventilation systems.

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

**Eye/face protection** Tight sealing safety goggles. Face protection shield.

**Hand protection** Wear suitable gloves. Impervious gloves.

**Skin and body protection** Wear suitable protective clothing. Long sleeved clothing. Chemical resistant apron.

**Respiratory protection** No protective equipment is needed under normal use conditions. If exposure limits are exceeded or irritation is experienced, ventilation and evacuation may be required.

**General hygiene considerations** Avoid contact with skin, eyes or clothing. Wear suitable gloves and eye/face protection. Do not eat, drink or smoke when using this product. Remove and wash contaminated clothing and gloves, including the inside, before re-use. Contaminated work clothing should not be allowed out of the workplace. Regular cleaning of equipment, work area and clothing is recommended. Wash hands before breaks and immediately after handling the product.

## 9. Physical and Chemical Properties

### 9.1. Information on basic physical and chemical properties

<b>Physical State:</b>	Liquid	<b>Odor:</b>	Amine
<b>Appearance:</b>	Clear	<b>Odor Threshold:</b>	No information available
<b>Color:</b>	Colorless to yellowish		

<u>Property</u>	<u>Values</u>	<u>Remarks • Method</u>
<b>pH:</b>	8.25	Neat
<b>Salt Out Point:</b>		No information available
<b>Melting Point/Freezing Point:</b>	0 °C / 32 °F	
<b>Boiling Point/Boiling Range:</b>	77 °C / 171 °F	
<b>Flash Point:</b>		No information available
<b>Evaporation Rate (BuAc=1):</b>		No information available
<b>Flammability (solid, gas)</b>		No information available
<b>Flammability Limits in Air:</b>		No information available
<b>Upper Flammability Limit:</b>		<b>Lower Flammability Limit:</b>
<b>Vapor Pressure (mm Hg):</b>		No information available
<b>Vapor density (Air =1)</b>		No information available
<b>Specific Gravity (H<sub>2</sub>O=1):</b>	1.295	
<b>Specific Gravity (2nd value):</b>		
<b>Water Solubility:</b>	Soluble in water	
<b>Solubility(ies):</b>		No information available
<b>Partition Coefficient (n-octanol/water)</b>		No information available
<b>Autoignition Temperature:</b>		No information available
<b>Decomposition Temperature:</b>		No information available
<b>Kinematic Viscosity:</b>		No information available
<b>Dynamic Viscosity:</b>		No information available
<b>Oxidizing Properties:</b>	No information available	
<b>Explosive Properties:</b>	No information available	

### 9.2. Other information

<b>Softening Point:</b>	No information available
<b>Molecular Weight:</b>	N/A
<b>VOC Content(%):</b>	No information available
<b>Liquid Density</b>	10.81 lbs/gal
<b>Bulk density</b>	No information available

## 10. Stability and Reactivity

<b>Reactivity</b>	No information available.
<b>Chemical stability</b>	Stable under normal conditions.
<b>Possibility of hazardous reactions</b>	None under normal processing.
<b>Conditions to avoid</b>	Exposure to air or moisture over prolonged periods.
<b>Incompatible materials</b>	Acids. Bases. Oxidizing agent. Galvanized steel. Copper. Copper alloys.
<b>Hazardous decomposition products</b>	Thermal decomposition can lead to release of irritating and toxic gases and vapors. Nitrogen oxides (NO <sub>x</sub> ). Carbon monoxide.

## 11. Toxicological Information

### Information on likely routes of exposure

**Product Information****Inhalation**

Specific test data for the substance or mixture is not available. Corrosive by inhalation. (based on components). Inhalation of corrosive fumes/gases may cause coughing, choking, headache, dizziness, and weakness for several hours. Pulmonary edema may occur with tightness in the chest, shortness of breath, bluish skin, decreased blood pressure, and increased heart rate. Inhaled corrosive substances can lead to a toxic edema of the lungs. Pulmonary edema can be fatal.

**Eye contact**

Specific test data for the substance or mixture is not available. Causes burns. (based on components). Corrosive to the eyes and may cause severe damage including blindness. Causes serious eye damage. May cause irreversible damage to eyes.

**Skin contact**

Specific test data for the substance or mixture is not available. Causes severe burns. May be absorbed through the skin in harmful amounts. Harmful in contact with skin. (based on components).

**Ingestion**

Specific test data for the substance or mixture is not available. Causes burns. (based on components). Ingestion causes burns of the upper digestive and respiratory tracts. May cause severe burning pain in the mouth and stomach with vomiting and diarrhea of dark blood. Blood pressure may decrease. Brownish or yellowish stains may be seen around the mouth. Swelling of the throat may cause shortness of breath and choking. May cause lung damage if swallowed. May be fatal if swallowed and enters airways.

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

Redness. Burning. May cause blindness. Coughing and/ or wheezing.

**Numerical measures of toxicity**

No information available

**Acute Toxicity:**

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

ATEmix (oral) 2,331.60 mg/kg

ATEmix (dermal) 1,652.70 mg/kg

ATEmix (inhalation-dust/mist) 1.50 mg/l

**Unknown Acute toxicity**

100 % of the mixture consists of ingredient(s) of unknown toxicity

22.4 % of the mixture consists of ingredient(s) of unknown acute oral toxicity

22.4 % of the mixture consists of ingredient(s) of unknown acute dermal toxicity

100 % of the mixture consists of ingredient(s) of unknown acute inhalation toxicity (gas)

100 % of the mixture consists of ingredient(s) of unknown acute inhalation toxicity (vapor)

80 % of the mixture consists of ingredient(s) of unknown acute inhalation toxicity (dust/mist)

**Component Information**

Chemical name	Oral LD <sub>50</sub> :	Dermal LD <sub>50</sub> :	LC <sub>50</sub> (Lethal Concentration):
Boric acid (H <sub>3</sub> BO <sub>3</sub> ) 10043-35-3	= 2660 mg/kg ( Rat )	> 2000 mg/kg ( Rabbit )	> 0.16 mg/L ( Rat ) 4 h
2-Aminoethanol 141-43-5	= 1720 mg/kg ( Rat )	= 1000 mg/kg ( Rabbit )	-

**Delayed and immediate effects as well as chronic effects from short and long-term exposure****Skin corrosion/irritation**

Causes severe burns.

**Serious eye damage/eye irritation**

Classification based on data available for ingredients. Causes burns. Risk of serious damage to eyes.

**Respiratory or skin sensitization**

No information available.

**Germ cell mutagenicity**

No information available.

**Carcinogenicity**

This product does not contain any carcinogens or potential carcinogens as listed by OSHA, IARC or NTP.

**Reproductive toxicity**

Classification based on data available for ingredients.

**STOT - single exposure**

No information available.

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**STOT - repeated exposure** No information available.

**Target Organ Effects:** Respiratory system, Eyes, Skin, Central nervous system.

**Other Adverse Effects:** No information available.

**Aspiration hazard** No information available.

## 12. Ecological Information

**Ecotoxicity** The environmental impact of this product has not been fully investigated.

Chemical name	Toxicity to algae	Toxicity to fish	Toxicity to microorganisms	Toxicity to daphnia and other aquatic invertebrates
Boric acid (H <sub>3</sub> BO <sub>3</sub> ) 10043-35-3	-	-	-	115 - 153: 48 h Daphnia magna mg/L EC50
2-Aminoethanol 141-43-5	15: 72 h Desmodesmus subspicatus mg/L EC50	227: 96 h Pimephales promelas mg/L LC50 flow-through 3684: 96 h Brachydanio rerio mg/L LC50 static 300 - 1000: 96 h Lepomis macrochirus mg/L LC50 static 114 - 196: 96 h Oncorhynchus mykiss mg/L LC50 static 200: 96 h Oncorhynchus mykiss mg/L LC50 flow-through	-	65: 48 h Daphnia magna mg/L EC50

**Persistence and Degradability:** No information available.

**Bioaccumulation:** There is no data for this product.

### Component Information

Chemical name	Partition Coefficient:
Boric acid (H <sub>3</sub> BO <sub>3</sub> ) 10043-35-3	-0.757
2-Aminoethanol 141-43-5	-1.91

**Other Adverse Effects:** No information available.

## 13. Disposal Considerations

### Waste treatment methods

**Waste from residues/unused products** Dispose of in accordance with local regulations. Dispose of waste in accordance with environmental legislation.

**Contaminated packaging** Do not reuse empty containers.

## 14. Transport Information

### DOT

**Description** Not DOT Regulated

## 15. Regulatory Information

### International Inventories

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AICS -  
TSCA -  
DSL/NDSL -  
EINECS/ELINCS -  
ENCS -  
IECSC -  
KECL -  
PICCS -

Chemical name	AICS	TSCA	DSL	NDSL	EINECS	ELINCS	ENCS	IECSC	KECL	PICCS
Boric acid (H <sub>3</sub> BO <sub>3</sub> )	Present	Present ACTIVE	Present	-	Present	-	Present	Present [25550]	Present	Present
2-Aminoethanol	Present	Present ACTIVE	Present	-	Present	-	Present	Present [01018]	Present	Present

### Inventory Legend

**AICS** - Australian Inventory of Chemical Substances

**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

**RESTRICTIONS - REACH TITLE VII** No information available

### US Federal Regulations

#### CERCLA

This material, as supplied, does not contain any substances regulated as hazardous substances under the Comprehensive Environmental Response Compensation and Liability Act (CERCLA) (40 CFR 302) or the Superfund Amendments and Reauthorization Act (SARA) (40 CFR 355). There may be specific reporting requirements at the local, regional, or state level pertaining to releases of this material

#### SARA 313

Section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 (SARA). This product does not contain any chemicals which are subject to the reporting requirements of the Act and Title 40 of the Code of Federal Regulations, Part 372

#### 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

### **16. Other Information**

**Prepared By:** HSE Department

**Issue Date:** 24-Jun-2020

**Revision Date:** 24-Jun-2020

**Revision Note:** New Product

#### 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

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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.

**End of Safety Data Sheet**