



THREE ELEPHANT® Boric Acid Granular Technical

PESTICIDE: EPA Registration No. 64745-3

Safety Data Sheet

1. Product and Company Identification

Product Name: THREE ELEPHANT® Boric Acid Granular Technical (**Pesticide**)
Other Product Name(s): Boric Acid; Boracic acid; orthoboric acid; Boron Trihydroxide; Hydrogen orthoborate; Trihydroxyborane
Product Use: PESTICIDE: EPA Registration No. **64745-3**
Not for Food or Drug Use - - ONLY for Manufacturing Use
Manufacturer: SEARLES VALLEY MINERALS INC.
13200 MAIN STREET; P.O. BOX 367
TRONA, CALIFORNIA 93592-0367
Information: (760) 372-2291
Emergency Telephone Numbers: 1-800-424-9300 (USA/Canada CHEMTREC)
+1 (703) 527-3887 (International & Maritime CHEMTREC)

2. Hazards Identification

Emergency Overview: A white crystalline solid that may cause mild irritation to the skin, eyes, and respiratory tract. Not flammable.

OSHA Regulatory Status: Hazardous
WHMIS Regulatory Status: Hazardous
OSHA Classification: Reproductive Toxicity 2
OSHA Signal Word: WARNING
OSHA Hazard Statements: May damage fertility or the unborn child.

OSHA Precautionary Statements: Do not handle until all safety precautions have been read and understood. Wear protective gloves and safety eyewear. Wash thoroughly after handling. If on skin, wash with plenty of water. Wash contaminated clothing before reuse. If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If inhaled: Remove person to fresh air and keep comfortable for breathing. If skin irritation occurs or eye irritation persists, get medical attention. Store in a well ventilated place. Keep container tightly closed. Dispose of container in accordance with Federal and local regulations.

OSHA Label Symbols:



Other Hazards Not Specified by OSHA: Oral Acute Toxicity Category 5

** Note: Label designed to meet OSHA & FHSA label requirements and may contain additional phrases.

Potential Health Effects

Skin: Can cause mild skin irritation.
Eyes: Causes mild eye irritation.
Ingestion: Low toxicity. May cause discomfort.
Inhalation: May cause mild irritation if inhaled
Chronic Effects: May cause reproductive effects affecting fertility and/or development of the unborn child.

Ingredients found on established carcinogen lists:

Ingredient	NTP Status	IARC Statue	OSHA List
No ingredients listed in this section.	---	---	---

3. Composition / Information on Ingredients

Chemical Name	EPA Registration No.	CAS #	EINECS #	Wt. %
Boric Acid*	64745-3	10043-35-3	233-139-2	Label Claim 100%
H ₃ BO ₃	SAL – JUN 18, 2003			

*May contain trace amounts of naturally-occurring substances including arsenic and other metals. See Section 15 for California Proposition 65 Warning.

4. First Aid Measures

Skin:	Wash with plenty of water. Wash contaminated clothing before reuse. Seek medical attention if skin irritation occurs.
Eyes:	Rinse eyes cautiously with water for several minutes. Remove contact lenses if present and easy to do. Continue rinsing. Seek medical attention if irritation persists.
Ingestion:	If you feel unwell, contact a doctor or poison control center.
Inhalation:	Move to fresh air. Seek medical advice in case of irritation.
Advice to Physician:	Treat symptomatically.

5. Fire Fighting Measures

Extinguishing Media:	Any media suitable for surrounding fire.
Fire/Explosion Hazards:	None indicated.
Fire Fighting Procedures:	Wear normal firefighting gear suitable for surrounding fire. Self-contained respiratory protection may be required.
Flammable Limits:	None.
Flash Point	Not flammable.
Autoignition Temperature:	None.
Hazardous Combustion Products:	May produce boron compounds if involved in a surrounding fire.

6. Accidental Release Measures

Personal Precautions:	Wear proper personal protective equipment as indicated in Section 8.
Containment:	Not normally required as this is a solid material; not normally mobile.
Clean up:	Sweep and place into container for reuse and/or disposal.
Notification Requirements:	None normally required.

7. Handling and Storage

Handling:	<p>Wear proper personal protective equipment as indicated in Section 8. Wash hands before eating or drinking. It is a violation of Federal Law to use this product in a manner inconsistent with its labeling.</p> <p>Formulators And Repackagers Using This Product Are Responsible For Obtaining Environmental Protection Agency (EPA) Registration For Their Products. [Refer to PR Notice 95-1 for the applicability of the <i>Environmental Hazards</i> statement to your product.]. This product is a soluble inorganic powder which may be used for the formulation of products for the following registered end-use patterns: 1) Algacides for water treatment in swimming pools; 2) Bacteriostats for use in impregnating or otherwise applying to absorbent material(s) to inhibit the growth of odor-causing bacteria when applied at a rate of 0.015 to 0.37% w/w (approximately) equivalent boron; 3) Insecticides for mop, spot, and crack and crevice treatment in homes, residential, industrial, institutional, and</p>
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commercial buildings and in transportation equipment; 4) Insecticide/fungicide for wood treatment.

Storage:

Store in a dry area. Keep packages tightly closed to minimize dust formation. Keep out of reach of children.

8. Exposure Controls / Personal Protection

Engineering

Controls:

Use local exhaust to keep airborne level below safe exposure guidelines listed below.

Personal Protective Equipment

Eyes and Face:

Wear safety glasses or chemical dust goggles to avoid accidental eye contact.

Respiratory:

Not required for properly ventilated areas. Otherwise use a NIOSH approved dust respirator.

Hands, Arms, and

Body:

Not normally required. Use work glove when handling product transfers or if skin is already irritated. Use rubber or neoprene gloves for handling product solutions.

Other:

Safety shower and an eyewash should be available for emergency exposures.

Exposure Guidelines

Ingredient	ACGIH TLV	ACGIH STEL	OSHA PEL	OSHA STEL	California PEL
Boric Acid (as nuisance dust)	15 mg/m ³ total dust 5 mg/m ³ respirable dust	None	15 mg/m ³ total dust 5 mg/m ³ respirable dust	None	10 mg/m ³ total dust 5 mg/m ³ respirable dust
H ₃ BO ₃					

9. Physical and Chemical Properties

Appearance & Physical State:	White, crystalline solid
Odor:	None
Odor Threshold:	None
pH (1% solution):	3.9 (4 % solution at 68 °F)
Specific Gravity:	1.44
Bulk Density:	Not available
Initial Boiling Point & Range:	Not applicable
Melting Point /Freezing Point:	326.2 °F (169 °C).
Evaporation Rate:	Not applicable
Percent Volatile:	None
Solubility in Water:	4.7% at 68 °F (20 °C)
Vapor Density:	Not applicable
Vapor Pressure:	Not applicable
Upper/ Lower Flammable Limits:	None
Flash Point:	None
Auto ignition Temperature:	Not flammable
Flammability (solid, gas):	Not flammable
Octanol/water partition coefficient:	Not determined
Decomposition temperature:	See section 10.
Viscosity:	Solid – Not applicable

10. Stability and Reactivity

Stability:

Normally stable. Forms partial hydrate in moist air. When heated, the material is converted to MetaBorax Acid (HBO₂). On further heating, material is converted to Boric Oxide (B₂O₃).

Conditions to Avoid:

Keep away from high temperatures and strong reducing agents.

Materials to avoid:

Borax Acid reacts with strong reducing agents such as metal hydrides or alkali metals producing explosive hydrogen gas.

Polymerization: Does not occur.
Hazardous Decomposition Products: None known.

11. Toxicological Information

Eye: Can cause mild irritation. Boric Acid, when applied to the eyes of albino rabbits (Draize test), produced effects of mild erythema, and mild to moderate discharge in 5 of 6 rabbits. All signs subsided by the fourth day after application.

Skin: LD₅₀ (dermal, rabbit) > 2000 mg/kg. Can cause mild irritation. Boric Acid was applied to the skin of albino rabbits; slight to no irritation persisted 72 hours after application. No evidence of tissue damage was found.

Oral: LD₅₀ (oral, rat) 2660 mg/kg.

Inhalation: ACGIH establish that exposures above safe levels stated in section 8 may produce upper respiratory irritation. Occupational exposure to safe levels not expected to produce any adverse effects.

Chronic:

- A report issued by the National Toxicology Program showed "no evidence of carcinogenicity" from a full two-year bioassay on Boric Acid on mice at feed doses of 2,500 to 5,000 ppm in the diet. No mutagenic activity was observed for Boric Acid in a recent battery of four short-term mutagenicity assays.
- Classification = Reproductive toxin Category 1B based on EU CLP classification. Dietary levels of Boric Acid of 6,700 ppm in chronic feeding studies in rats and dogs produced testicular changes {Weir, Fisher, 1972}. In chronic feeding studies of mice on diets containing 5,000 ppm Boric Acid, testicular atrophy was present, while mice fed 2,500 ppm Sodium Tetraborate Pentahydrate showed no significant increase in testicular atrophy. In another chronic Boric Acid study, degeneration of seminiferous tubules was present together with a reduction of germ cells in mice fed 4,500 ppm Sodium Tetraborate Pentahydrate.
- Boric Acid at dietary levels of 1,000 ppm administered to pregnant female rats throughout gestation caused a slight reduction in fetal weight, but was considered close to the no observable effect level. Doses of 2,000 ppm and above caused fetal malformations and maternal toxicity. In mice, the no effect level for fetal weight reduction and maternal toxicity was 1,000 ppm Boric Acid. Fetal weight loss was noted at dietary levels of 2,000 ppm and above. Malformations (agenesis or shortening of the thirteenth rib) were seen at 4,000 ppm [Heindal et al., 1992]. The doses administered were many times in excess of those to which humans would normally be exposed.

12. Ecological Information

Acute ecotoxicity: Boron naturally occurs in seawater at an average concentration of 5 mg B/liter. In laboratory studies the acute toxicity (96-hr LC₅₀₊) for under-yearling Coho salmon (*Onchorhynchus kisutch*) in seawater was determined as 40 mg B/L (added as Sodium Metaborate). The Minimum Lethal Dose for minnows exposed to Boric Acid at 200 °C for 6 hours is 18,000 to 19,000 mg/L in distilled water, 19,000 to 19,500 in hard water.

Rainbow trout (*S. gairdneri*)
24-day LC₅₀ = 150.0 mg/B/L
36-day NOEC-LOEC++ = 0.75-1 mg/B/L

Goldfish (*Carassius auratus*)
7-day NOEC-LOEC = 26.50 mg/B/L
3-day LC₅₀ = 178 mg/B/L

Daphnids
48-hour LC₅₀ = 133 mg/B/L
21-day NOEC-LOEC = 6-13 mg/B/L

Chronic ecotoxicity: Not determined.

Other Information: Not considered to bioaccumulate or to be persistent in the environment.

13. Disposal Considerations

RCRA Status: Do not contaminate water, food or feed by storage or disposal. **It is a violation of Federal Law to use this product in a manner inconsistent with its labeling.**

Disposal Method: **Pesticide Disposal:** Waste resulting from the use of this product may be disposed of on site or at an approved waste disposal facility. **Container Disposal:** Completely empty bags into application equipment, then dispose of empty bag in a sanitary landfill or by incineration, or, if allowed by state and local authorities, by burning. If burned, stay out of smoke. Observe all federal, state, and local regulations concerning disposal of waste pesticide and containers.

14. Transportation Considerations

DOT Proper Shipping Name: Not regulated for transport

DOT Primary Hazard Class: Not applicable

DOT UN / NA Number: Not applicable

DOT Packing Group: Not applicable

TDG (Canada): Not regulated

IMDG (International water): Not regulated

ICAO (Air transport): Not regulated

15. Regulatory Information

UNITED STATES

Toxic Substances Control Act (TSCA)

TSCA Inventory Status: Listed on TSCA Chemical Inventory.

Other TSCA Issues: None

SARA Title III/CERCLA

Ingredients with "Reportable Quantities" (RQs) and/or "Threshold Planning Quantities" (TPQs).

Ingredient	SARA/CERCLA RQ (lb)	SARA EHS TPQ (lb)
No ingredients listed in this section	---	---

Spills or releases resulting in the loss of any ingredient at or above its RQ require immediate notification to the National Response Center [(800) 424-8802] and to your Local Emergency Planning Committee.

SARA 311 Hazard Class:	Immediate, Delayed
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SARA 313 Toxic Chemicals:

The following ingredients are SARA 313 "Toxic Chemicals" and may be subject to annual reporting requirements. CAS numbers and weight percent are found in Section 2.

Ingredient	Comment
No ingredients listed in this section.	---

State Right-To-Know

California Proposition 65

 **WARNING:** This product can expose you to chemicals including arsenic, which is known to the State of California to cause cancer and birth defects or other reproductive harm. For more information go to www.P65Warnings.ca.gov.

Additional Regulatory

Information: Not listed in Clean Water Act or in Safe Drinking Water Act.

CONEG Model Legislation: Meets all CONEG requirements relating to heavy metal limitations on components of packaging materials.

FIFRA: Signal Word: CAUTION

Precautionary Statement: Harmful if swallowed
PESTICIDE: EPA Registration No. **64745-3**
Not for Food or Drug Use - - ONLY For Manufacturing Use

CANADA

WHMIS Classification: D2A, classified in conformance with the Controlled Products Regulations and contains all data required by that regulation.

WHMIS Ingredient

Disclosure List: Boric Acid is listed.

DSL Status (Domestic

Substances List): Listed on DSL.

Ingredients for this product also found on the chemical inventories of Australia, China, Korea, European Union, Japan, and the Philippines.

16. Other Information

- This material is not intended for use in pesticide manufacture.
- Keep out of reach of children.

Issue Date: March 1, 2024

Previous Issue Date: January 1, 2022

Changes from previous version: None

National Fire Protection Assoc. (NFPA) Classification:

4 = Severe; 3 = Serious; 2 = Moderate; 1 = Slight, 0 = Minimal

Health	1
Flammability	0
Reactivity	0

Hazardous Materials Information Systems (HMIS):

4 = Extreme; 3 = High; 2 = Moderate; 1 = Slight; 0 = Insignificant

Health	1
Flammability	0
Physical Hazard	0

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