

THREE ELEPHANT® Borax Technical

Sodium Tetraborate Decahydrate PESTICIDE: EPA Registration No. 64745-2 Safety Data Sheet

1. Product and Company Identification

Product Name	THREE ELEPHANT® Borax Technical (Pesticide)
Other Product Name(s)	Ortho Borax Decahydrate; Borax; Deca Borax; Sodium Tetraborate
	Decahydrate; Borax 10 Mol; Disodium Tetraborate Decahydrate
Product Use	PESTICIDE: EPA Registration No. 64745-2
	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	1-800-424-9300 (USA/Canada CHEMTREC)
Numbers	+1 (703) 527-3887 (International & Maritime CHEMTREC)

2. Hazards Identification

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

OSHA Regulatory Status	Hazardous
	1.10
WHMIS Regulatory Status	Hazardous
OSHA Classification	Eye corrosion/irritation 2A
	Reproductive Toxicity 2
OSHA Signal Word	WARNING
OSHA Hazard Statements	Causes serious eye irritation.
	May damage fertility or the unborn child.
OSHA Precautionary	Do not handle until all safety precautions have been read and
Statements	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 serious eye irritation.	
Ingestions	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	

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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. %
Sodium tetraborate decahydrate (as inorganic borate)*	64745-2	1303-96-4	215-540-4	Label Claim 100%
Na ₂ B ₄ O ₇ · 10H ₂ O	SAL – AUG 23, 2004			

^{*}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.
Ingestions	If you feel unwell, contact a doctor or poison control center.
Inhalation	Remove 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	Wear proper personal protective equipment indicated in Section 8.
Precautions:	
Containment:	Not normally required as this is a solid material not normally mobile.
Clean Up:	Sweep up and place into container for reuse and/or disposal.
Notification	None normally required.
Requirements:	

7. Handling and Storage

Handling:	Wear proper personal protective equipment 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.
	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</i>

	Hazards statement to your product.). This product is a soluble inorganic powder which may be used for the formulation of products for the following registered enduse patterns: 1) Algaecides 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 commercial buildings and in transportation equipment; 4) Insecticide/fungicide for Wood treatment	
Storage:	Should be stored in a dry location. Keep packages tightly closed to minimize dust formation. Keep out of the reach of children.	T

8. Exposure Controls / Personal Protection

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

Personal Protective Equipment:

Eyes and Face:	ace: 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, Not normally required. Use work glove when handling product transfers or i			
and Body:	already irritated. Use rubber or neoprene gloves for handling product solutions.		
Other	Safety shower and eyewash should be available for emergency exposures.		

Exposure Guidelines:

Ingredient	ACGIH TLV	ACGIH STEL	OSHA PEL	OSHA STEL	California PEL	
Borax Decaborate (as inorganic borate)	2 mg/m ³ inhalable dust	6 mg/m ³ inhalable dust	15 mg/m ³ total dust 5 mg/m ³	None	5 mg/m ³	
Na ₂ B ₄ O ₇ * 10H ₂ O			respirable dust			

9. Physical and Chemical Properties

Appearance & Physical State	White, crystalline solid
Odor:	None
Odor Threshold:	None
pH (1% solution)	9.23 (1% solution at 68 °F)
Specific Gravity:	1.73
Bulk Density	Not available
Initial Boiling Point & Range:	Not applicable
Melting Point /Freezing Point:	Begins losing water of crystallization at 143.6 °F (62 °C).
	Converts to anhydrous form that fuses at 1367 °F (742 °C)
Evaporation Rate:	Not applicable
Percent Volatile:	None
Solubility in Water	4.8% 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. When heated, the material loses water and is converted to anhydrous borax $(Na_2B_4O_7)$.	
Conditions to Avoid: Keep away from high temperatures and strong reducing agents.		
Materials to avoid Reacts with strong reducing agents such as metal hydrides or alka 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:	LD ₅₀ (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:	LD ₅₀ (oral, rat) 4500 - 5000 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	Boron naturally occurs in seawater at an average concentration of 5 mg B/liter. In
ecotoxicity:	laboratory studies the acute toxicity (96-hr LC ₅₀ +) 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 $LC_{50} = 150.0 \text{ mg/B/L}$
	36-day NOEC-LOEC++ = 0.75-1 mg/B/L
	Goldfish (Carassius auratus)

		7-day NOEC-LOEC = 26.50 mg/B/L 3-day LC ₅₀ = 178 mg/B/L
	Daphnids	48-hour LC_{50} = 133 mg/B/L 21-day NOEC-LOEC = 6-13 mg/B/L
Chronic ecotoxicity:	Not determined.	
Other Not considered to bioaccumulate or to Information		ed to bioaccumulate or to be persistant 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 (Ib)	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 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			
3	limitations on components of packaging materials.			
FIFRA	Signal Word: CAUTION			
	Precautionary Statement: Harmful if swallowed			
	PESTICIDE: EPA Registration No. 64745-2			
	Not for Food or Drug Use ONLY For Manufacturing Use			

CANADA:

WHMIS Classification:	D2A, D2B Classified in conformance with the Controlled Products Regulations and contains all data required by that regulation.
WHMIS Ingredient Disclosure List	Boric Acid and Boric Anhydride are 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

- May be used for the manufacture of a pesticide product when registered for such use
- Keep out of the reach of children.

Issue Date:	January	1, 2020				
Previous Issue Date:	August 21, 2018					
Changes from previous v	ersion:	Relocated OSHA	Classification,	Oral Acute	Toxicity Cate	gory 5

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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