

20140

MATERIAL SAFETY DATA SHEET  
COMPLIES WITH OSHA HCS 29 CFR 1910.1200 AND OSHA 174

40A0701

MSDS# L-113 Revision # 1

PRODUCT NAME (AS USED ON LABEL): BORAXO<sup>R</sup> POWDERED HAND SOAP

ALTERNATE PRODUCT NAME: N/A

\*\*EMERGENCY TELEPHONE NUMBER: (602) 253-3334\*\*

DIA 02203,  
02208

SECTION I

MANUFACTURER/DISTRIBUTOR: THE DIAL CORP  
1850 N. CENTRAL  
PHOENIX, AZ 85077

TELEPHONE NUMBER FOR GENERAL INFORMATION: (602) 991-3000

SECTION II-HAZARDOUS INGREDIENTS

Finished Product: OSHA (PEL)-N/A ACGIH (TLV)-N/A

Hazardous Components:

Chemical/Common Name	CAS Number	PEL/TLV-Source
Sodium tetraborate, decahydrate/borax	1303-96-4	OSHA 8-hr TWA PEL, 10 <sub>3</sub> mg/m <sup>3</sup> ACGIH TLV-TWA, 5 mg/m <sup>3</sup>

\*Values were set to protect workers from acute irritant effects on skin and mucous membranes of the eyes, nose, and other sites.

SECTION III-PHYSICAL/CHEMICAL CHARACTERISTICS

Boiling Point: ND	Melting Point: ND
Vapor Density (Air=1): ND	Freezing Point: ND
Specific Gravity (Water=1): 0.898	pH: 9.1 (1% Solution)
Vapor Pressure (mm Hg.): ND	Evaporation Rate (*=1): ND
Volatiles by Weight (%): ND	*Butyl Acetate
Solubility in Water: Approximately 5% @ 20° C.	
Appearance/Odor: White granular powder with slight floral odor.	

SECTION IV-FIRE AND EXPLOSION HAZARD DATA

Flash Point (°F)/Method Used: None  
Flammable Limits (LEL/UEL): None  
Extinguishing Media: Not required. Product is inherent fire retardant.  
Special Fire Fighting Procedures: None  
Unusual Fire and Explosion Hazards: None

SECTION V-REACTIVITY DATA

Stability: Stable  
Chemical Incompatibility: None  
Hazardous Decomposition Products: None  
Hazardous Polymerization: Will Not Occur  
Conditions to Avoid: None

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SECTION VI-HEALTH HAZARD DATA

Route of Entry: Inhalation - Unlikely under normal use conditions  
Skin - Likely  
Ingestion - Unlikely under normal use conditions.  
Eye - Unlikely under normal use conditions.

Health Hazards (Acute and Chronic):

Acute:

- Inhalation - Respiratory tract irritation has been reported among individuals exposed to high dust levels of sodium tetraborates.
- Ingestion - The acute oral LD<sub>50</sub> for the product in rats is greater 6.81 g/kg body weight. This value is consistent with the acute oral toxicity in rats of the product's predominant ingredients, borax and soap. See paragraph below for additional information on borate toxicity following exposure by this and other routes, which are considered relevant for predicting borate toxicity by this route.
- Skin - Although the primary skin irritation index of the product in rabbits is 0, no effect (16 CFR 1500.41), prolonged contact with aqueous solutions of it would be expected to be irritating to rabbit, and probably human, skin because under similar conditions sodium tetraborate and soap are irritating to rabbit skin. Also, occupational experience with sodium tetraborates, suggest prolonged skin contact with the dry product, which contains a high concentration of borax, would be irritating or drying to the skin.  
  
The acute dermal LD<sub>50</sub> for the product in rabbits is greater than 2.0 g/kg body weight (16 CFR 1500.40). See paragraph below for additional information on borate toxicity following exposure by this and other routes, which are considered relevant for predicting borate toxicity by this route.
- Eyes - The product produces reversible conjunctivitis when instilled in the eyes of rabbits (16 CFR 1500.42). This effect is consistent with the ocular effects of sodium tetraborates and soap.

Chronic: ND for product

Borate systemic toxicity. Acute and chronic exposure to sodium borates or boric acid, which is chemically and toxicologically similar to sodium borates, produce gastrointestinal, central nervous system, skin, renal and hepatic toxicity, and death in humans. Chronic exposure to these compounds produce growth suppression, testicular degeneration, infertility, death and, possibly red blood cell toxicity in animals.

Most borate poisonings among humans have followed ingestion, instillation into a body cavity, or application to damaged or diseased skin. Many of the reported cases involved infants, who may be a sensitive population to borate toxicity. Also, recent published literature on boric acid ingestions indicate the toxic potency of these compounds may be dramatically less than indicated in some of the older primary literature or recent secondary sources.

<u>Carcinogenicity*</u> :	<u>NTP</u>	<u>IARC Monographs</u>	<u>OSHA Regulated</u>
	NL	No	No

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\*The product has not been tested for this effect.

Effects of Overexposure:

Inhalation - Dryness of mouth, nose, and throat, nose and throat irritation, nosebleeds, dry cough, chest tightness, shortness of breath, and dyspnea have been reported among workers exposed to high dust levels of sodium tetraborates.

Ingestion - Nausea, abdominal pain, vomiting, diarrhea, headache, lethargy, lightheadedness, delirium, convulsions, coma, diminished urine output, alopecia, and an erythematous desquamating rash have been reported among individuals poisoned by sodium tetraborates or boric acid.

Skin - Irritation and chapping.

Eyes - Temporary burning, stinging, or irritation.

Medical conditions generally aggravated by exposure: None

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SECTION VII-PRECAUTIONS FOR SAFE HANDLING AND USE

Steps to be taken in case material is released or spilled:

Eye Protection - None necessary unless direct eye contact with the product is expected or unless high dust levels of the product are produced. In such situations, wear glasses or goggles as appropriate.

Skin Protection - None necessary unless prolonged or extensive exposure to the product is expected or unless skin is damaged or diseased. In such situations, wear borax impermeable gloves, garments, or shoes as appropriate.

Respiratory Protection - None necessary except in areas where airborne dust concentrations of sodium borax exceed established workplace limits. In those areas, wear appropriate NIOSH-approved respirator.

Handling: Retain package integrity.

Storage: Dry indoor storage.

Normal Clean Up: Sweep or vacuum. Rinse area with water.

Waste Disposal: Sanitary sewer or solid waste. Not a hazardous waste.

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SECTION VIII-FIRST AID & MEDICAL EMERGENCY PROCEDURES

Eyes: Flush eyes with tepid water, occasionally lifting lids, until all visible material has been removed. If any more than transitory irritation or discomfort occur, call a physician, preferably an ophthalmologist.

Skin: Rinse all material from the skin.

Inhalation: Remove to fresh air.

Ingestion: For amounts exceeding a taste, immediately call a poison control center (e.g. 602-253-3334) or a physician.

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SECTION IX-CONTROL MEASURES-OCCUPATIONAL

Respiratory Protection (Specify Type): Wear appropriate NIOSH-approved dust respirator in areas where airborne dust concentrations of borax exceed established workplace limits.

Ventilation: As necessary to prevent airborne concentrations of borax from exceeding applicable workplace limits.

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Protective Gloves - None necessary unless prolonged exposure to the product is expected or unless skin is damaged or diseased. In such situations wear borax impermeable gloves.

Eye Protection - None necessary unless direct eye contact with the product is expected or unless high dust levels of the product are produced. In such situations, wear glasses or goggles as appropriate.

Other Protective Clothing or Equipment - None necessary unless prolonged or extensive skin contact is expected or unless skin is damaged or diseased. In such situations, wear appropriate borax impermeable garments or shoes.

Work/Hygienic Practices: Do not eat or drink in work area.

#### REFERENCES

- American Conference of Governmental Industrial Hygienists. (1988). Threshold Limit Values and Biological Exposure Indices for 1988-1989. American Conference of Governmental Industrial Hygienists, Cincinnati, OH.
- American Conference of Governmental Industrial Hygienists. Documentation of the Threshold Limit Values And Biological Exposure Indices. Fifth Ed. American Conference of Governmental Industrial Hygienists, Inc., Cincinnati, OH.
- Cosmetic Ingredient Review. (1983). Final report on the safety assessment of sodium borate and boric acid. J. Am. Coll. Toxicol. 2 (7), 87-125.
- Litovitz, T. Klein-Schwartz, W. Oderda, G., and Schmitz, B. (1988). Clinical manifestations of toxicity in a series of 784 boric acid ingestions. Am. J. Emerg. Med. 6 (3), 209-212.
- McCliff, C. C. and Jenney, E. H. (1950). The pharmacology of boric acid and boron compounds. Bull. Nat. Form. Comm. 18, 57-80.
- Stokinger, H. E. (1981). The halogens and the nonmetals boron and silicon. In: Patty's Industrial Hygiene and Toxicology. 3rd Ed., (G. D. Clayton and F. E. Clayton, Eds.) Vol. IIB. Chap. 40, pp. 2984-2987. John Wiley and Sons, Inc., New York.
- United States Occupational Safety and Health Administration. (1989). Air contaminants. Borates, tetra, sodium salts (anhydrous, pentahydrate, and decahydrate). Fed. Reg. 54(12), 2451-2452.
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SECTION X-ENVIRONMENTAL IMPACT

Applicable Regulations: 16 CFR 500  
DOT/EPA Hazard Class: None  
Shipping Name: See product name

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EPA - SARA Title III Section 313: Toxic chemical - no  
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NOTE: N/A=Not Applicable            ND= Not Determined            NI=Not Listed  
      NIF=No Information Found            NE=None Established  
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Date Prepared: 04/24/92

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Change: Reviewed and Updated MSDS.

End of MSDS