WINFIELD UNITED

Boron 15%

Safety Data Sheet

NFPA HAZARD RATING				U.S. TRANSPORT SUMMARY
0	Least			Not regulated by the U.S. DOT as a hazardous material. See Section 14 for additional information.
1	Slight	1	Health	
2	Moderate	0	Flammability	
3	High	0	Reactivity	
4	Severe			

SECTION 1: IDENTIFICATION

Product Name: Boron 15%%
EPA Registration #: Exempt
Product ID/Unity #:
Common Name: Sodium borate
Chemical Description: Sodium Tetraborate Pentahydrate
Recommended Uses: Fertilizer product – See product label for directions for use.
Restrictions for Use: See product label for any potential restrictions.

Manufactured For:	MEDICAL EMERGENCY TELEPHONE NUMBER: 1-877-424-7452 (24hrs)
WINFIELD SOLUTIONS, LLC P. O. Box 64589 St. Paul, MN 55164-0589	Non-Emergency Business Inquiries: 1-855-494-6343 Mon – Fri 8am – 5pm (Central Standard Time)

FOR EMERGENCY, SPILL, LEAK, FIRE, EXPOSURE, OR ACCIDENT, CALL:
CHEMTREC 1-800-424-9300 (24 hours)

SECTION 2: HAZARDS IDENTIFICATION

EMERGENCY OVERVIEW: White odorless granules. Causes eye irritation.

POTENTIAL HEALTH EFFECTS:
Eyes: Exposure to dust causes moderate eye irritation.
Skin: Contact may cause brief irritation. Prolonged or repeated exposure may lead to reddening of skin, rash, dermatitis, or other skin reactions.
Inhalation: Inhalation of dust may cause temporary irritation of the upper respiratory tract.
Ingestion: Ingestion of small quantities is not expected to have toxic effects.
Preexisting Conditions: Preexisting respiratory conditions may be aggravated by exposure to dusts.
Chronic Health Effects: None known.

Carcinogenicity NTP: Not listed IARC: Not listed OSHA: Not listed

OSHA HCS 2012 CLASSIFICATION: Eye Irritation Category 2A; Reproductive Toxicity Category 2

SIGNAL WORD: WARNING

HAZARD STATEMENTS:
Causes serious eye irritation.
Suspected of damaging fertility or the unborn child.

Percent of product with unknown toxicity: 0.0%

PRECAUTIONARY STATEMENTS:
Prevention: Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Wear protective gloves, protective clothing, eye protection and face protection. Wash hands thoroughly after handling.

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Response:	If in eyes: Rinse cautiously with water for 15 minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists: Get medical attention. If exposed or concerned: Get medical attention.
Storage:	Store in a secured area.
Disposal	Dispose of contents/container in accordance with Federal, state and local regulations.

SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

Ingredient	% (wt)	CAS Reg. #
Sodium tetraborate pentahydrate	99.0 -100.0%	12179-04-3

*Ingredients not specifically listed are non-hazardous and are considered to be confidential business information under 29 CFR 1910.1200(i).

See Section 8 for exposure limits.

SECTION 4: FIRST AID MEASURES

Inhalation:	Remove person from contaminated area to fresh air and assist breathing as needed. Seek medical attention if irritation occurs.
Ingestion:	Seek medical attention or call a poison control center for treatment advice. Do not induce vomiting unless instructed to do so by a poison control center or doctor. Do not give anything by mouth to an unconscious person.
Eyes:	Flush eyes with clean water for at least 15 minutes. Lift eyelids to facilitate irrigation. If present, remove contact lenses after 5 minutes and continue rinsing. Seek medical attention if eye irritation persists.
Skin:	Remove contaminated clothing and wash before re-using. Flush skin with water and then wash with soap and water. Seek medical attention if skin irritation persists.

NOTE TO PHYSICIANS: Observation only is required for adult ingestion of a few grams of inorganic borate salt. For ingestion of larger amounts, maintain adequate kidney function and force fluids. Gastric lavage is recommended for symptomatic patients only. Hemodialysis should be reserved for massive acute ingestion or patients with renal failure. Boron analyses of urine or blood are only useful for documenting exposure and should not be used to evaluate severity of poisoning or to guide treatment.

SECTION 5: FIRE FIGHTING MEASURES

Suitable Extinguishing Media: The product itself is a flame retardant. Use extinguishing media appropriate for surrounding fire.
Special Fire Fighting Procedures: Wear NIOSH/MSHA approved self-contained breathing apparatus and full bunker gear. Dike area to prevent runoff and contamination of water sources. Dispose of fire control water later. Avoid breathing vapors; keep upwind.
Hazardous Combustion Products: Carbon and nitrogen oxides
Unusual Fire and Explosion Hazards: None known

SECTION 6: ACCIDENTAL RELEASE MEASURES

Personal Precautions: Refer to Section 8 for personal protective equipment to be worn during containment and clean-up of a spill involving this product.
Environmental Precautions: Keep spilled product and any rinse water from entering sewers or waterways. High concentrations may cause damage to trees or vegetation by root absorption.
Methods for Containment: Contain spilled product by sweeping up if a small spill or by diking area with sand or earth if a large spill.
Methods for Clean-up: Avoid dust formation. Vacuum, scoop or sweep up material and place in a container for disposal. If product is uncontaminated, spilled material may be applied at the rate recommended on the label. Never return spills to original containers for re-use. After removal of spilled product, flush contaminated area thoroughly with water.
Other Information: None known

SECTION 7: HANDLING AND STORAGE

Handling: Avoid breathing dust. Use only outdoors or in a well-ventilated area. Immediately clean up spills that occur during handling. Keep containers closed when not in use. Practice good hygiene after using this material, especially before eating, drinking, smoking, using the toilet, or applying cosmetics.
Storage: Store in a cool, dry area away from children, feed and food products. Store away from incompatible materials. Protect packaging from physical damage. Keep containers closed when not in use.
Minimum Storage Temperature: Not applicable
Other Precautions: Consult Federal, state and local laws and regulations pertaining to storage.

SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

Exposure Guidelines

Component:	OSHA PEL	ACGIH TLV	NIOSH REL
Sodium tetraborate pentahydrate	10 mg/m3 (total dust)	1 mg/m3	

Respiratory Protection: If dust concentration exceeds permissible levels, wear NIOSH approved air-purifying respirator with cartridges/canisters approved for general particulates.

Engineering Controls: **Local Exhaust:** Provide general or local exhaust ventilation systems to maintain airborne concentrations below OSHA PELs or other specified exposure limits. Local exhaust ventilation is preferred.

Protective Gloves: Wear chemically protective gloves to prevent exposure to skin.
Eye Protection: Wear chemical goggles or safety glasses and full face shield. Contact lenses are not eye protective devices. An emergency eyewash or water supply should be readily accessible to the work area.
Other Protective Clothing or Equipment: Wear long-sleeve shirt, long pants and shoes plus socks to prevent skin contact.

Work/Hygienic Practices: Never eat, drink, nor use tobacco in work areas. Practice good hygiene after using this material, especially before eating, drinking, smoking, using the toilet, or applying cosmetics.

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

Physical State:	Solid	**Specific Gravity (H_2O=1):**	1.81
Vapor Pressure (mm Hg):	Negligible @ 68°F (20°C)	**Density (lbs/gallon):**	Not applicable
Vapor Density (Air=1):	Not determined	**Melting Point/Freezing Point:**	392°F (200°F) (heated in closed spaces)
Solubility in Water (wt %):	3.8% @ 68°F (20°C)	**Boiling Point/Range:**	Not determined
Viscosity:	Not determined	**pH (3% solution):**	9.3
Appearance and odor:	White odorless granules	**Flash Point:**	Non-combustible

SECTION 10: STABILITY AND REACTIVITY

Reactivity: Sodium tetraborate pentahydrate is a stable product, but when heated it loses water, eventually forming anhydrous borax (Na2B4O7).
Chemical Stability: Product is stable at ambient temperature and pressure, under normal storage and handling conditions.
Possibility of Hazardous Reactions: Will not occur.
Conditions to Avoid: Dust generation, contact with incompatible materials and damp areas
Incompatible Materials: Reaction with strong reducing agents, such as metal hydrides or alkali metals, will generate hydrogen gas, which could create an explosive atmosphere.
Hazardous Decomposition Products: None known

SECTION 11: TOXICOLOGICAL INFORMATION

ACUTE TOXICITY

Eye Effects:	Exposure to dust causes moderate eye irritation.
Skin Effects:	LD50 >2,000 mg/kg; Not a skin sensitizer.
Acute Inhalation Effects:	LC50 >2.0 mg/L
Acute Oral Effects:	LD50 = 3,200 – 3,400 mg/kg (rats)
Specific Target Organ Toxicity:	None known

CHRONIC TOXICITY

Chronic Effects:	None known
Carcinogenicity:	No components are anticipated to have carcinogenic effects.
Mutagenicity:	No components are anticipated to have mutagenic effects.
Teratogenicity:	See Reproductive toxicity.
Reproductive Toxicity:	Animal feeding studies in the rat, mouse and dog, at high doses, have demonstrated effects on fertility and testes. Also, studies with chemically related boric acid in the rat, mouse and rabbit, at high doses, demonstrate developmental effects on the fetus including fetal weight loss and minor skeletal variations. The doses administered were many times in excess of those which humans would normally be exposed to. A human epidemiology study under the conditions of normal occupational exposure to borate dusts indicated no effect on fertility.

POTENTIAL HEALTH EFFECTS:

Eyes: Exposure to dust causes moderate eye irritation.

Skin: Contact may cause brief irritation. Prolonged or repeated exposure may lead to reddening of skin, rash, dermatitis, or other skin reactions.

Inhalation: Inhalation of dust may cause temporary irritation of the upper respiratory tract.

Ingestion: Ingestion of small quantities is not expected to have toxic effects.

SECTION 12: ECOLOGICAL INFORMATION

ENVIRONMENTAL SUMMARY: Boron is an essential micronutrient for healthy growth of plants; however, it can be harmful to boron sensitive plants in higher quantities. Care should be taken to minimize the amount Sodium tetraborate pentahydrate released to the environment.

ECOTOXICITY DATA:

Fish Acute and Prolonged Toxicity:	Not determined
Aquatic Invertebrate Acute Toxicity:	Not determined
Aquatic Plant Toxicity:	Green algae, *Scenedesmus subspicatus* 96-hr EC10 = 24 mg B/l
Bird Acute and Prolonged Toxicity:	Not determined
Honeybee Toxicity:	Not determined

ENVIRONMENTAL EFFECTS:

Soil Absorption/Mobility:	Sodium tetraborate is soluble in water. Absorption coefficients indicate that sodium tetraborate is absorbed to sandy loam soil, loam soil, and low humic content sand soil and that absorption to humic sand soil is insignificant. Decomposes in the environment to natural borate. Adsorption of sodium tetraborate to sediments is insignificant.
Persistence and degradability:	Sodium tetraborate will undergo hydrolysis in water to form undissociated boric acid.
Bioaccumulative Potential:	Low bioaccumulation potential; log Pow = 0.7570 @ 25°C, based on boric acid. Boric acid will not biomagnify through the food chain.
Other adverse effects:	Not determined

SECTION 13: DISPOSAL CONSIDERATIONS

Waste: Dispose of in accordance with applicable Federal, state and local laws and regulations.

Container: Ensure all product has been emptied from the sack/bag. Dispose of emptied container in accordance with applicable Federal, state and local laws and regulations.

RCRA Characteristics: It is the responsibility of the individual disposing of this product to determine the RCRA classification and hazard status of the waste.

SECTION 14: TRANSPORT INFORMATION

DOT: (Ground)	This product is not regulated by the U.S. Department of Transportation as a hazardous material for ground shipment.
IMDG: (Sea)	Not determined
IATA: (Air)	Not determined
TDG: (Canada)	Not determined

SECTION 15: REGULATORY INFORMATION

TSCA Inventory: All components are listed or are exempt from listing on the TSCA inventory.

SARA Title III Information:

Section 302 - Extremely hazardous substances: None listed

Section 311/312 – Hazard Categories: Immediate (Acute)

Section 313 – The following chemicals are subject to the reporting requirements of Section 313 of Title III, Superfund Amendments and Reauthorization Act of 1986 and 40 CFR 372:

None listed

CERCLA - This product contains the following chemicals which have a reportable quantity (RQ) under the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA):

None listed

California Proposition 65: This product does not contain any chemicals known to the State of California to cause cancer and/or reproductive harm.

U.S. State Worker and Community Right-To-Know (RTK) Information (CT, IL, MA, MN, NH, NJ, PA, RI):

Chemical Name	CAS #	State(s)
None listed		

Canadian Domestic Substances List: All components are on the DSL.

WHMIS Classification: This product is not registered for use in Canada. WHMIS Classification is not determined.

SECTION 16: OTHER

Disclaimer: The information presented herein is based on available data from reliable sources and is correct to the best of WinField Solutions' knowledge. WinField Solutions, LLC makes no warranty, express nor implied, regarding the accuracy of the data or the results obtained from the use of this product. Nothing herein may be construed as recommending any practice or any product in violation of any law or regulations. The user is solely responsible for determining the suitability of any material or product for a specific purpose and for adopting any appropriate safety precautions. We disclaim all liability for injury or damage stemming from any improper use of the material or product described herein.

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