

Material Safety Data Sheet

AgriSolutions Boron 14.3%

Section 1 – PRODUCT AND COMPANY IDENTIFICATION

PRODUCT NAME: AgriSolutions Boron 14.3%

TRADE NAMES: None

SYNONYMS: Mixture of Boron compounds

CHEMICAL FAMILY: Sodium salts of boron compounds

MSDS CREATION DATE: October, 2007

MSDS CURRENT REVISION DATE: 9-28-09

DISTRIBUTED BY: Winfield Solutions, LLC, PO Box 64589, St. Paul, Minnesota 55164-0589

EMERGENCY: CHEMTREC (24 Hour Emergency Response) 1-800-424-9300

Section 2 – COMPOSITION/INFORMATION ON INGREDIENTS

Ingredient Name	CAS Number	% wt
Sodium tetraborate pentahydrate	12179-04-3	99
Disodium octaborate tetrahydrate		

Section 3 – HAZARDS IDENTIFICATION

EMERGENCY OVERVIEW: White, odorless crystals whose dusts may irritate the eyes. Skin irritation unlikely unless exposure is continuous. May be harmful if swallowed. **NFPA Rating:** Health = 1, Fire = 0, Reactivity = 0

POTENTIAL HEALTH EFFECTS:

INHALATION: Product dusts may cause irritation of the nasal membranes and upper respiratory tract.

SKIN CONTACT: Slight irritation possible from prolonged contact.

EYE CONTACT: Contact with dusts may cause irritation.

INGESTION: May irritate the digestive tract. May be harmful if taken in large quantities.

LONG-TERM AND/OR DELAYED EFFECTS: Limited animal data exists indicating large oral doses may result in reproductive effects. Studies of humans exposed to boron and borates have not shown any long-term adverse effects.

CARCINOGEN STATUS:

OSHA: Not listed **NTP:** Not listed **IARC:** Not listed

Section 4 – FIRST AID MEASURES

INHALATION: Remove from exposure area to fresh air immediately. Get medical attention for irritation or any other symptom.

SKIN CONTACT: Remove contaminated clothing and shoes. Wash affected area with soap or mild detergent and rinse with water. Get medical assistance for irritation or any other symptom.

EYE CONTACT: Flush eyes immediately with large amounts of water (approximately 15-20 minutes). Get medical attention for irritation.

INGESTION: Dilute the product immediately with large amounts of water or milk. Do not induce vomiting unless directed to do so by a doctor or other medical professional. If vomiting occurs, keep head lower than hips to prevent introduction of fluid into the lungs. Get medical attention immediately.

NOTE TO PHYSICIAN: Treat symptomatically.

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Section 5 – FIRE-FIGHTING MEASURES

FLASH POINT: None

AUTOIGNITION TEMPERATURE: Not determined

FIRE AND EXPLOSION HAZARD: No special hazard anticipated.

EXTINGUISHING MEDIA: Use any standard agent suitable for surrounding structural fire or for other chemicals that may be involved.

FIREFIGHTING: Wear appropriate self-contained positive pressure breathing apparatus. Dike area to prevent runoff and contamination of water sources.

HAZARDOUS COMBUSTION PRODUCTS: Thermal decomposition may include carbon dioxide, carbon monoxide and oxides of boron.

Section 6 – ACCIDENTAL RELEASE MEASURES

IN CASE OF SPILL: Pick-up dry spills by scooping, shoveling or vacuuming and place into containers for reuse or disposal. Wear appropriate protective clothing. See section 8.

Section 7 – HANDLING AND STORAGE

STORAGE: Store in a cool, dry place. Protect containers from physical damage.

NORMAL HANDLING: Avoid contact with skin and eyes. Do not breath product dusts. Wash thoroughly after handling.

Section 8 – EXPOSURE CONTROLS/PERSONAL PROTECTION

EXPOSURE LIMITS

INGREDIENT	OSHA PEL	ACGIH TLV	Other values
Sodium tetraborate pentahydrate	None	1 mg/m ³	None

* = ACGIH Biological Exposure Value ** = AIHA Workplace Environmental Exposure Level

VENTILATION: Not normally required.

EYE PROTECTION: Wear safety glasses.

CLOTHING: Wear trousers and long sleeved shirt to avoid skin contact.

GLOVES: Wear work gloves. If working with solutions, wear rubber or other impervious gloves to prevent contact.

RESPIRATOR: If product dust may be generated, use a NIOSH approved air-purifying respirator.

EMERGENCY WASH FACILITIES: Where there is the potential that an employee's eyes and/or skin may be exposed to this product, the employer should provide an eye wash fountain and safety shower or another source of running water within the immediate work area.

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Section 9 – PHYSICAL AND CHEMICAL PROPERTIES

DESCRIPTION: White crystalline solid, odorless
MOLECULAR FORMULA: Mixture
MOLECULAR WEIGHT: 291.35
pH: 9.3 (3.0 % water solution @ 68°F)
MELTING POINT: 392°F (heated in closed space)
BOILING POINT: Not determined
VAPOR PRESSURE: Negligible @ 68°F
VAPOR DENSITY: Not applicable
WATER SOLUBILITY: 3.8% @ 68°F
SOLVENT SOLUBILITY: Not determined
SPECIFIC GRAVITY: 1.81
DENSITY: 57-60 lbs/ft³

Section 10 – STABILITY AND REACTIVITY

REACTIVITY: Stable under normal temperatures and pressures.
CONDITIONS TO AVOID: Avoid contact with acids and strong oxidizers and/or excessive heat. Do not allow spilled material to contaminate water sources.
INCOMPATIBILITIES: None
HAZARDOUS DECOMPOSITION: Thermal decomposition products may include carbon monoxide, carbon dioxide and borates.
POLYMERIZATION: Has not been reported to occur under normal temperatures and pressures.

Section 11 – TOXICOLOGICAL INFORMATION

Disodium octaborate tetrahydrate:
LD₅₀ (oral, rat) 2550 mg/kg LD₅₀ (skin, rabbit) > 2,000 mg/kg
Although animal studies of borates have produced reproductive effects in animals (rats, mice, and dogs via high dosage oral administration), no similar effects have been observed in human populations who have had occupational exposure to these materials.

Section 12 – ECOLOGICAL INFORMATION

ACUTE AQUATIC TOXICITY: No data available
DEGRADABILITY: No data available
LOG BIOCONCENTRATION FACTOR (BCF): No data available
LOG OCTANOL/WATER PARTITION COEFFICIENT: No data available

Section 13 – DISPOSAL CONSIDERATIONS

Product (as shipped) is not a RCRA hazardous waste if discarded. Observe all federal, state and local regulations when disposing of this product.

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Section 14 - TRANSPORT INFORMATION

This product is not regulated in surface transportation.

Section 15 – REGULATORY INFORMATION

TSCA STATUS: All ingredients are listed on the TSCA Inventory of Chemical Substances and/or are in compliance with the TSCA chemical inventory and premanufacturing regulations.

OTHER TSCA ISSUES: None

SARA 311 CLASSIFICATION: Acute hazard.

SARA 313 NOTIFICATION: No ingredients listed.

CERCLA RQs and TPQs: No ingredients listed.

CALIFORNIA PROPOSITION 65: No ingredients found on the Propositions 65 list.

CANADIAN INVENTORY: All ingredients listed on the Canadian Domestic Substances List. Fertilizer products are regulated under the Fertilizers Act.

WHMIS: This product has been classified in accordance with hazard criteria of the Controlled Products Regulations and the MSDS contains all the information required by the Controlled Products Regulations. Classification: D2B

Section 16 – ADDITIONAL INFORMATION

CHANGES FROM PREVIOUS VERSION: Name revised 9-28-09.

Individuals handling this product should be informed of the recommended safety precautions and should have access to this information. Customers are responsible for compliance with local, state and federal regulations that may be pertinent in the storage, application and disposal of this product.