

Borates Plus

1101 S. Orange Blossom Trail
Apopka, FL 32703

Safety Data Sheet
21 % Foliar Boron

Revised: 4/22/2015

1. IDENTIFICATION OF THE SUBSTANCE AND OF THE COMPANY

Product identifier

Commercial Name: 21% Foliar Boron

Chemical Name: Disodium Octaborate Tetrahydrate

CAS No: 12008-41-2

Synonyms: Octaborate, DOT, Soluble Boron, Aquabor, $\text{Na}_2\text{B}_8\text{O}_{13} \cdot 4 \text{H}_2\text{O}$

Substance's identified relevant applications and unadvisable uses:

Advisable uses:

- Fertilizers
- Biocide substances
- Flame retardants
- Fluxes

Uses advised against:

- Not specified

Supplier information from the Safety Information Sheet:

Producer: Borates Plus
1101 S. Orange Blossom Trail
Apopka, FL 32703
Tel: 724-332-1446 Fax: 440-398-0476

Emergency line: CHEMTREC - Within USA and Canada: 1-800-424-9300

2. HAZARDS IDENTIFICATION

Classification of the substance

GHS-US classification

Health, Reproductive toxicity,1B

Label elements:



Danger

H361: Suspected of damaging fertility or the unborn child

H303: May be harmful if swallowed.

H316: Causes mild skin irritation.

H320: Causes eye irritation

P201: Obtain special instructions before use.

P202: Do not handle until all safety precautions have been read and understood.

P281: Use personal protective equipment as required.

P308 + P313: IF exposed or concerned get medical advice/attention.

P405: Store locked up.

P501: Dispose of contents/container in accordance with local / regional / national / international regulations

3. COMPOSITION

Chemical Name: Disodium Octaborate Tetrahydrate

CAS No: 12008-41-2

Molecular Weight: 412.52

Purity like B element 21.0%

Purity like Na₂B₈O₁₃ · 4 H₂O 99.5%

4. FIRST-AID MEASURES

IF INHALED: Remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Call a physician.

IF SWALLOWED: Induce vomiting immediately as directed by medical personnel. Never give anything by mouth to an unconscious person.

IF ON SKIN: Remove any contaminated clothing. Wash skin with soap or mild detergent and water for at least 15 minutes. Get medical attention if irritation develops or persists. Wash clothing before re-use.

IF IN EYES: Immediately flush eyes with plenty of water for at least 15 minutes, lifting lower and upper eyelids occasionally. Get medical attention immediately.

5. FIRE-FIGHTING MEASURES

Fire Extinguishing Media: Use any means suitable for extinguishing fire.

Hazards: Not considered to be a fire hazard.

Recommendations for fire-fighters: In the event of a fire, wear full protective clothing and NIOSH-approved self-contained breathing apparatus with full face piece operated in the pressure demand or other positive pressure mode.

Explosion: A mixture of potassium and boric acid may explode on impact.

6. ACCIDENTAL RELEASE MEASURES

Personal precautions and equipment: Ventilate area of leak or spill. Wear appropriate personal protective equipment as specified in Section 8.

Methods and materials for cleaning up material: Collect with a vacuum, broom, or shovel without raising dust and use a container which meets the local regulations when discarding.

7. HANDLING AND STORAGE

Precautions for safe handling: Wash hands after handling this material. Avoid contact especially when skin is cut or abraded.

Safe Storing Conditions: Store in closed containers in a cool, dry area. Carbon steel or aluminum containers are suitable for storage. Stainless steel is needed for moist conditions. Use good housekeeping practices to prevent accumulation of dust and follow sound cleaning techniques that will keep airborne particulates at a low level. Containers of this material may be hazardous when empty since they retain product residues (dust, solids); observe all warnings and precautions listed for the product.

8. PERSONAL PROTECTION

Skin Protection: Gloves and lab coat, apron or coveralls.

Eye Protection: Use chemical safety goggles. Maintain eye wash fountain and quick-drench facilities in work area.

9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance: White powder or granules.
Odour: Odourless.
Solubility: 1g/18mL in cold water.
PH: 5.1 Aqueous solutions: (0.1M)
% Volatiles by volume @ 21C (70F): 0
Boiling Point: Decomposes.
Melting Point: 169oC (336oF)
Vapour Density (Air=1): No information found.
Vapour Pressure (mm Hg): 2.6 @ 20C (68oF)
Evaporation Rate (BuAc=1): No information

10. STABILITY AND REACTIVITY

Chemical stability: Stable under ordinary conditions of use and storage. If moisture is present, boric acid can be corrosive to iron.

Hazardous Decomposition Products: Loses chemically combined water upon heating, forming metaboric acid (HBO₂) at 212-221F, then pyroboric acid (H₂B₄O₇) at 285-320F, and Boric anhydride at higher temperatures.

Hazardous Polymerization: Will not occur.

Incompatibilities: Potassium, acetic anhydride, alkalis, carbonates, and hydroxides.

Conditions to Avoid: No information found.

11. TOXICOLOGICAL INFORMATION

Toxicological Data: Oral rat LD50: 2660 mg/kg; oral woman LDLo: 200 mg/kg; investigated as a mutagen, tumorigen, reproductive effectors.

Reproductive Toxicity: See Chronic Health Hazards.

NTP Carcinogen

Ingredient	Known	Anticipated
-----	-----	-----
Boric Acid (10043-35-3)	No	No

12. ECOLOGICAL INFORMATION

Environmental Fate: No information found.

Environmental Toxicity: The EC50/48-hour values for daphnia are over 100 mg/l. May be toxic to aquatic life.

13. DISPOSAL CONSIDERATIONS

Disposal Guidance: Small quantities of Disodium Octaborate Tetrahydrate can usually be disposed of at Municipal Landfill sites. No special disposal treatment is required, but refer to state and local regulations for applicable site-specific requirements. Tonnage quantities of product are not recommended to be sent to landfills. Such products should be re-used for an appropriate application. RCRA (40 CFR 261): Disodium Octaborate Tetrahydrate is not listed under any sections of the Federal Resource Conservation and Recovery Act (RCRA).

14. TRANSPORT INFORMATION

DOT Classification: NOT RESTRICTED

15. REGULATORY INFORMATION

RCRA: Boric Acid is not listed as a hazardous waste under any sections of the Resource Conservation and Recovery Act or regulations (40 CFR 261 et seq.)

Superfund: CERCLA/SARA. Boric Acid is not listed under CERCLA (the Comprehensive Environmental Response Compensation and Liability Act) or its 1986 amendments, SARA (Superfund Amendments and Reauthorization Act), including substances listed under Section 313 of SARA, Toxic Chemicals, 42 USC 11023, 40 CFR 372.65; Section 302 of SARA, Extremely Hazardous Substances, 42 USC 11002, 40 CFR 355; or the CERCLA Hazardous Substances list, 42 USC 9604, 40 CFR 302.

Safe Drinking Water Act: Boric Acid is not regulated under the SDWA, 42 USC 300g-1, 40 CFR 141 et seq. Consult state and local regulations for possible water quality advisories regarding boron. Clean Water

Act (Federal Water Pollution Control Act): 33 USC 1251 et seq. (a) Boric Acid is not itself a discharge covered by any water quality criteria of Section 304 of the CWA, 33 USC 1314.

(b) It is not on the Section 307 List of Priority Pollutants.

(c) It is not on the Section 311 List of Hazardous Substances, 33 USC 1321, 40 CFR 116.

IARC: The International Agency for Research on Cancer (of the World Health Organization) does not list or categorize Boric Acid as a carcinogen.

OSHA Carcinogen: Boric Acid is not listed.

California Proposition 65: Boric Acid is not listed on any Proposition 65 lists of carcinogens or reproductive toxicants.

Federal Food, Drug and Cosmetic Act: Pursuant to 21 CFR 175.105, 176.180 and 181.30, Boric Acid is approved by the FDA for use in adhesive components of packaging materials, as a component of paper coatings on such materials, or for use in the manufacture thereof, which materials are expected to come in contact with dry food products.

CONEG Model Legislation: Boric Acid meets all the CONEG requirements relating to heavy metal limitations on components of packaging materials.

16. OTHER INFORMATION

SDS updated on: 4-22-2015