

Safety Data Sheet

1. CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

Product Name: Hi-Boost
Synonyms: -
Product Type: Agricultural trace element solution

Company Name: Hi-Tech Ag Solutions
 24 Shanahan Road (PO Box 5351)
 Davenport WA 6230 Australia

Phone: 08 9725 7322

Emergency Contact: After Hours Terry Kneale
 Chief Executive Office
 0499 944 099

Date of Issue: 22nd March 2019

2. HAZARDS IDENTIFICATION

Hazard Classification: **Hazard classification according to the criteria of GHS Classification. Dangerous goods classification according to the Australia Dangerous Goods Code.**

Hazard Category C Corrosive

GHS Classification: Skin Corrosion/Irritation

Label Elements:



Signal Word: Danger

Hazard Statement: Causes Severe skin burns and eye damage

Precautionary Statement(s): Do not breathe vapours. Wash hands and eyes thoroughly after handling. Wear protective gloves/protective clothing, eye protection/face protection.

Response: If swallowed rinse mouth. Do not induce vomiting. If on skin (or hair) remove immediately all contaminated clothing. Rinse skin with water. Wash contaminated clothing before reuse. If inhaled remove victim to fresh air and keep at rest in a position comfortable for breathing. Immediately call a Poison Information Centre or doctor. If in eyes rinse cautiously with water for several minutes. Remove contact lenses if present and easy to do. Continue rinsing.

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Storage: Store locked up, and out of reach of children

Disposal: Dispose of contents/container according to applicable local and state government regulations.

3. INFORMATION ON INGREDIENTS

Chemical Entity	Formula	CAS Number	Proportion
Phosphoric Acid (H ₃ PO ₄)	No Data Available	7664-38-2	20 – 30%
Manganese Sulphate (MnSO ₄)	No Data Available	10034-96-5	20 – 30%
Zinc Sulphate (ZnSO ₄)	No Data Available	7733-02-0	25 – 35%
Water (H ₂ O)	No Data Available	7732-18-5	BALANCE %

4. FIRST AID MEASURES

Inhalation: Remove victim from exposure to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give Oxygen. Seek medical attention.

Ingestion: Do not induce vomiting. Wash mouth thoroughly with water. Give water to drink if person is conscious. Seek medical attention immediately.

Skin Contact: Take off contaminated clothing. Wash skin off immediately with plenty water for 15 to 20 minutes. Seek medical attention. Wash clothes before reuse. If burned, treat as burn by acid.



Eye: Rinse with plenty of clean water for 15 minutes, seek immediate Medical attention.



First Aid Facilities: Eyewash and normal washroom facilities

Advice to Doctor: Treat symptomatically based on judgement of doctor and individual reactions of patient.
 NOTE; Persons who have been exposed to contaminated smoke should be immediately examined by a physician and check for symptoms of poisoning. These symptoms should not be mistaken for heat exhaustion.

Medical conditions: No information available on medical conditions aggravated by exposure to this product.

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aggravated by exposure:

SIGNS AND SYMPTOMS OF EXPOSURE: To the best of our knowledge, the chemical, physical, and toxicological properties have not been thoroughly investigated. May cause cyanosis (blue-grey colouring of skin and lips caused by lack of oxygen). Symptoms of exposure may include burning sensation, coughing, wheezing, laryngitis, shortness of breath, headache, nausea, and vomiting.
TARGET ORGAN INFORMATION: Bone marrow. Blood. Liver.
ROUTE OF EXPOSURE: Multiple Routes: May be harmful by inhalation, ingestion, or skin absorption.

Other Information: For advice in an emergency, contact a Poisons Information Centre (Phone Australia 13 1126 or a doctor at once.

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5. FIRE FIGHTING MEASURES

Hazards from Combustion: **Non-combustible material.**

Specific Hazards: This product is non-combustible.

Precautions in connection with Fire: Non-combustible liquid. Incompatible with strong oxidizing agents, strong reducing agents, strong alkali, active powdered metals, Fluorine, sulphur trioxide, phosphorus pentoxide, metals, and sources of ignition. This product will release hydrogen on contact with metals, which may cause explosion in the air. Reacts with water to generate heat and forms phosphoric acid. The reaction is not violent. Emits toxic fumes under fire conditions. It will produce the virulent gas of oxidation phosphorus at a high temperature. It is corrosive. Hazardous decomposition products may include Phosphine, oxides of phosphorus, and hydrogen gas.

In case of fire, use Carbon dioxide, dry chemical powder, or appropriate foam.

Hazchem Code: 2R

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6. ACCIDENTAL RELEASE MEASURES

Emergency Procedures:	Personnel involved in the clean-up should wear full protective clothing as listed in Section 8. Avoid accidents, clean-up immediately. Evacuate all unnecessary personnel. Increase ventilation. Avoid walking through spilled product, as it is slippery when spilt. Stop leak if safe to do so. Do NOT let product reach drains or waterways. If product does enter a waterway, advise the Environmental Protection Authority or your local Waste Management. Use clean, non-sparking tools and equipment. Shut off all possible sources if ignition. Neutralize spilled product with lime or soda. Soak up using absorbent material such as sand or soil.
Clean Up Procedures:	When saturated, collect material and transfer to a suitable, labelled, dry chemical-waste containers and dispose of promptly as hazardous waste. Ventilate area and wash spill site after material pickup is complete.

7. HANDLING AND STORAGE

Precautions for Safe Handling:	Use only in a well ventilated area. Keep containers sealed when not in use. Do not store in aluminium or galvanized containers or use die-cast zinc or aluminium bungs. Plastic or steel bungs should be used. Prevent the build-up of mists or vapours in the work atmosphere. Avoid inhalation of vapours and mists, and skin, eye or clothing contact. Remove clothing if product gets inside, then wash thoroughly and out on clean clothing. Remove Personal Protective Equipment (PPE) Immediately after handling this product, wash outside of gloves and as soon as possible was thoroughly and change into clean clothing. Maintain high standards of personal hygiene i.e. Washing hands prior to eating, drinking, and smoking or using toilet facilities.
Conditions for Safe Storage:	Store in a cool, dry, well-ventilated area, out of direct sunlight and reach of children. Store in original, labelled containers. Keep containers closed when not in use. Ensure that storage conditions comply with applicable local and national regulations.

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

National Exposure Standards:	No exposure value assigned for this specific material
Biological Limit Values:	No biological limits allocated.
Engineering Controls:	Use with good general ventilation.

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Eye Protection:



Safety glasses with side shields or chemical goggles should be worn. An emergency eyewash or water supply should be readily accessible to the work area.
 Final choice of appropriate eye/face protection will vary according to individual circumstances.
 Eye protection devices should conform to Australian/New Zealand Standard AS/NZS 1337 - Eye Protectors for Industrial Applications.

Hand Protection:



Wear gloves of impervious material

Body Protection:

To avoid contact with skin, wear long pants, long-sleeved shirt, socks, shoes, chemical resistant apron in recommended where large quantities are handled, and chemical resistant gloves. And emergency shower or water supply should be readily accessible to the work area.

9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance:	Viscous Liquid
Odour:	Alkaline Odour
Melting Point:	N/A
Boiling Point:	>100° C
Solubility in Water:	Completely soluble – 100%
Specific Gravity:	1.38 – 1.48
pH Value	0.7 – 1.3
Vapour Pressure:	N/A
Vapour Density (Air=1):	N/A
Colour:	Light Brown
Flash Point:	N/A
Flammability:	Not flammable
Auto-Ignition Temperature:	N/A
Flammable Limits Lower:	N/A
Flammable Limits Upper:	N/A

Note: Physical data typical values but may vary from sample to sample. A typical value should not be construed as a guaranteed analysis or as a specification.

10. STABILITY AND REACTIVITY

Chemical Stability: Shelf Life – Hi-Boost, when stored in a cool area is a stable product and will not deteriorate within a reasonable time. Avoid conditions of heat and freezing. Product is stable under normal conditions of use, storage and temperature. Corrosive Liquid. Hygroscopic: absorbs moisture or water from the air.

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Conditions to Avoid:	Avoid excessive heat, direct sunlight, moist air or water. Incompatible with strong oxidising agents, strong reducing agents, strong alkali, active powdered metals, Fluorine, sulphur trioxide, phosphorus pentoxide, metals, and sources of ignition.
Hazardous:	This product will release hydrogen on contact with metals, which may cause explosion in the air. Reacts with water to generate heat and form phosphoric acid. The reaction is not violent. Emits toxic fumes under fire conditions. It will produce the virulent gas of oxidation phosphorus at a high temperature. It is corrosive. Hazardous decomposition products may include Phosphine, oxides of phosphorus, and hydrogen gas.
Hazardous Polymerisation:	Hazardous Polymerization May occur. Reacts with water to generate heat and form phosphoric acid. The reaction is not violent. Reacts with Bases.

11. TOXICOLOGICAL INFORMATION

Toxicity:	<p>Phosphoric acid: Oral LD50 (rat) = 1530 mg/kg Dermal LD50 (rabbit) = 2740 mg/kg Inhalation LC50 (rat) = 850 mg/m³ – 1 hour Draize test, rabbit, eye = 119 mg - Severe Draize test, rabbit, skin = 595 mg/24hour - Severe Inhalation of the spray mist may produce severe irritation of respiratory tract, characterized by coughing, choking, or shortness of breath. Severe over-exposure can result in death. Harmful if ingested. Causes irritation and burns of the gastrointestinal (tract. Inflammation of the eye is characterized by redness, watering, and itching. Skin contact may produce burns. The substance may be toxic to blood, liver, skin, eyes, bone marrow. Repeated or prolonged exposure to the substance can produce target organs damage.</p> <p>Zinc sulphate heptahydrate: Oral LD50 (rat) > 574 mg/kg Dermal LD50 (rat) > 2000 mg/kg Ingestion can cause irritation or corrosion of the alimentary tract. Contact with eyes or skin causes irritation. Target Organs: Skin, eyes, respiratory system and lungs</p>
Acute Oral Toxicity:	Data not available
Skin Corrosion/Irritation:	Causes severe skin burns
Serious Eye:	Causes eye damage.
Respiratory or skin irritation:	May cause skin irritation
Germ Cell Mutagenicity:	Data not available
Carcinogenicity:	Data not available
Reproductive Toxicity:	Data not available
STOT – single exposure	Data not available
STOT- repeated exposure:	Data not available
Aspiration Hazard:	Data not available

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12. ECOLOGICAL INFORMATION

Ecotoxicity: Not determined

Persistence & degradability: Not determined

Bio accumulative potential: Not determined

Mobility in soil: Not determined

13. DISPOSAL CONSIDERATIONS

Waste Disposal Method:

For any spillage wash with plenty of water or absorb with earth or other inert material

Dispose of in appropriately licence general landfill site in accordance with local, state and federal regulations. Waste should be labelled. Special arrangements made to bury bulk waste upon dumping, limiting exposure.

14. TRANSPORTATION INFORMATION

Land and Sea

Australia: ADG

Proper Shipping Name: PHOSPHORIC ACID, SOLUTION

Class: 8 Corrosive Substances

Subsidiary Risk(s): No Data Available

EPG: 37 Toxic And/or Corrosive Substances Non-Combustible

UN Number: 1805

Hazchem: 2R

Pack Group: III

Special Provision: No Data Available

EMS: FA, SB

Marine Pollutant: No

15. REGULATORY INFORMATION

Poisons Schedule: 6

16. OTHER INFORMATION

While the information is herein correct to the best of our knowledge, Hi-Tech Ag Solutions PTY LTD herein disclaims any warranties as to the accuracy of the same. Recommendations or suggestions are made without guarantee or representation as to result, as the condition that the buyer shall make his own test to determine its suitable for buyers purposes. No statement contained herein shall be constructed as a recommendation to infringe any patent. If this SDS is more than 2 years old please enquire if any revisions have been made prior to its use. This SDS was prepared from information provided by Hi-Tech Ag Solutions PTY LTD with the approval from Hi-Tech Ag Solutions PTY LTD.