

# MATERIAL SAFETY DATA SHEET

Product: ECOZAP  
Version: 1

Date issued: October 2012  
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## 1. PRODUCT AND COMPANY IDENTIFICATION:

### Identification of the product:

**Product name:** ECOZAP™  
**Uses:** A dusting powder for the control of cockroaches, crickets and fish moths  
**Active ingredient:** Boric acid – 770 g/kg

### Company identification:

<b>Company Name:</b>	Airborne Security CC	<b>eMail:</b>	<a href="mailto:ggsmit@icon.co.za">ggsmit@icon.co.za</a>
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	Republic of South Africa		<b>Tygerberg Poison Information Centre</b>

## 2. PRODUCT HAZARD IDENTIFICATION:

**Main Hazard:** None. The active ingredient is not flammable, combustible or explosive and is of moderate acute toxicity. Boric acid has been placed in EPA Toxicity Category III for most acute effects including oral and dermal toxicity and skin and eye irritation. Normal safety precautions for handling chemicals must be observed and the label directions adhered to.

**Principle Routes of Exposure** Eye contact, Skin contact, Ingestion, Inhalation.

### Health effects:

**Eye contact:** May cause slight irritation.  
**Skin contact:** This product is not irritating to intact skin.  
**Ingestion:** Small amounts swallowed accidentally are not likely to cause an effect. However, intentional consumption of large amounts may cause gastro-intestinal discomfort, including nausea, vomiting and diarrhoea.  
**Inhalation:** Not expected to be a problem under normal conditions of use. Inhalation of excessive dust can cause mild irritation of the respiratory tract.

## 3. COMPOSITION:

### Active ingredient: 77 %

<b>Chemical name:</b>	Boric acid	<b>Chemical family:</b>	Inorganic acid
<b>Synonyms:</b>	Orthoboric or boracic acid	<b>Molecular formula:</b>	H <sub>3</sub> BO <sub>3</sub>
<b>Cas No.:</b>	10043-35-3		
<b>IUPAC name:</b>	Boric acid; trihydroxidoboron		

### Inert ingredients: 23 %

Carrier and food-grade attractant.

## 4. FIRST AID MEASURES:

**Eyes:** Wash eyes with plenty of clean, cold water for at least 15 minutes. Hold eyelids open whilst washing. If symptoms persist, seek medical advice.  
**Skin:** Remove contaminated clothing. Rinse the affected skin area with plenty of water and soap. Do not rub skin hard.  
**Ingestion:** Get medical attention if symptoms appear. Do NOT induce vomiting unless directed to do so by medical personnel. Never give anything by mouth to an unconscious person.

*First Aid Measures Continued:*

**Inhalation:** Move the affected person to fresh air.  
**Note to physician:** Treat symptomatically.

**5. FIRE FIGHTING MEASURES:**

**Extinguishing media:** Water spray or fog, foam, dry chemical. (**DO NOT** use a solid water stream as it may scatter and spread the fire).  
**Special hazards:** None because boric acid is not flammable, combustible or explosive. The product is itself a flame retardant.  
**Further information:** Do not allow run-off from fire fighting to enter drains or water courses.

**6. ACCIDENTAL RELEASE MEASURES:**

**Personal precautions:** No personal protective clothing is needed to clean up land spills. However, in enclosed spaces, if the dust level is high, wear self-contained breathing apparatus.  
**Land spills:** Vacuum, shovel or sweep up boric acid and place in secure, properly labelled, sealable containers for disposal. Wash area but do not flush waste water into surface water or sanitary sewer system. Dispose of waste in accordance with local/national regulations.  
**Spillage in water** Contact the competent authorities if the situation cannot be controlled. Remove any intact containers from the water, if possible. Advise the local water authority that none of the affected water should be used for irrigation or for abstraction of potable water until natural dilution returns the boron value to its normal environmental background level.  
**Environmental precautions:** Boric acid is water soluble and at high concentrations can cause damage to trees and vegetation if absorbed through their roots.

**7. HANDLING AND STORAGE**

**Suitable material:** Store in original, sealed container.  
**Handling/storage precautions:** Store under lock and key away from children, uninformed persons and animals. Store in a cool, dry place. Store away from food, feed, eating utensils and drinking water.

**8. EXPOSURE CONTROLS / PERSONAL PROTECTION**

**Engineering control measures:** Introduce technical measures to keep airborne concentrations of boric acid to a minimum.  
**Personal protection:** **Respirator:** Where airborne concentrations are expected to exceed exposure limits, self-contained breathing apparatus should be used.  
**Eyes and Hands:** Goggles and gloves are not required for normal occupational exposures, but may be warranted if the environment is excessively dusty.  
**Skin:** Wash hands before breaks and at the end of the workday.

**9. PHYSICAL AND CHEMICAL PROPERTIES:**

**Appearance:** Fine, grayish white powder  
**Odour:** Odourless  
**Solubility in water:** Partially soluble  
**Flammability:** Not flammable  
**Explosive properties:** None

## 10. STABILITY AND REACTIVITY

<b>Stability:</b>	Stable under normal conditions.
<b>Hazardous decomposition products:</b>	None known or expected to be formed under normal conditions.
<b>Hazardous polymerisation:</b>	Will not occur.
<b>Special sensitivity:</b>	Moisture.

## 11. TOXICOLOGICAL INFORMATION

<b>Acute toxicity: (formulation - calculated)</b>	Acute oral rat 4 545 – 5 325 mg/kg bw	Acute dermal rabbit > 12 000 mg/kg/bw
<b>Carcinogenicity:</b>	Not carcinogenic.	
<b>Mutagenicity:</b>	Not mutagenic.	
<b>Reproductive and teratogenic effects:</b>	Reproductive effects are known to occur in test animals at dose rates higher than would be encountered during normal occupational exposure. Data from occupational exposures, accidental poisonings and epidemiological studies have not provided any conclusive information on the reproductive toxicity of boric acid in humans.	

## 12. ECOLOGICAL INFORMATION

<b>Toxicity to non-target organisms:</b>	Available studies indicate that technical boric acid is practically nontoxic to birds, fish and aquatic invertebrates, and relatively nontoxic to beneficial insects. In addition, boric acid's limited outdoor use patterns and natural presence in terrestrial and aquatic environments are mitigating factors for any potential risk to non-target organisms.
<b>Toxicity to Plants:</b>	Boric acid at high concentrations can be phytotoxic to boron-sensitive plants.
<b>Bio-accumulation:</b>	It has a low potential for bio-accumulation in animals.
<b>Biodegradability:</b>	Boric acid decomposes to natural borate in the environment.
<b>Mobility:</b>	It is soluble in water and will leach through normal soil.
<b>Ground or surface water:</b>	Unlikely to be a permanent source of contamination in water.

## 13. DISPOSAL CONSIDERATIONS:

<b>Disposal guidance:</b>	The product is classified as non - hazardous. No special disposal treatment is required.
<b>Disposal Methods:</b>	Small quantities of product can be disposed of on-site or with household waste. Large quantities of product should, if possible, be used for an appropriate application.
<b>Disposal of packaging:</b>	Empty containers must be disposed of in a responsible manner. Do not re-use for any other purpose.

## 14. TRANSPORT INFORMATION

<b>UN No.</b>	Boric acid has no UN No. and is not regulated under international rail, road, water or air transport regulations.
<b>IATA-DGR:</b>	Not classified as dangerous goods.

**15. REGULATORY INFORMATION:**

**Risk phrases:** None  
**Safety phrases:** S 1 Keep locked up.  
S 2 Keep out of the reach of children.  
S 3 Keep in a cool place.  
S 7 Keep container tightly closed.  
S 8 Keep container dry.  
S13 Keep away from food, drink and animal feed  
S20/21 When using do not eat, drink or smoke.  
S 22 Do not breathe dust.  
S24/25 Avoid contact with skin and eyes.  
S 49 Keep only in the original container.

**National Legislation:** Occupational Health and Safety Act No. 85 of 1993 (amended 2002).  
Fertilizers, Farm Feeds, Agricultural Remedies and Stock Remedies Act No. 36 of 1947 as amended.

**16. OTHER INFORMATION:**

**Exclusion of liability:**

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