1. Identification of Substance & Company

Product	
Product name	Exterm-An-Ant
HSNO approval	HSR000692
Approval description	Ready to use liquid containing 80 g/litre boric acid and 56 g/litre sodium borate
UN number	NA
Proper Shipping Name	NA
Packaging group	NA
Hazchem code	NA
Uses	Ant killer

Company Details	
Company	**Tasmex Ant Labs Limited**
Address	20 Mexted Place Hamilton 3216 PO Box 1186 Cambridge 3450
Telephone	+64 7 856 2326
Fax	+64 7 856 2326

Emergency Telephone Number: 0800-764 766

2. Hazard Identification

Approval

This product has been approved under the Hazardous Substances and New Organisms Act (HSNO, Approval HSR000692, Ready to use liquid containing 80 g/litre boric acid and 56 g/litre sodium borate), and is classified as follows:

Classes	Hazard Statements
6.8B	Suspected of damaging fertility or the unborn child
9.1D	May cause long lasting harmful effects to aquatic life.

SYMBOLS

WARNING

Other Classifications

There are no other Classifications that are known to apply.

Precautionary Statements

Read label before use.
Obtain special instructions before use.
Do not handle until all safety precautions have been read and understood.
Use personal protective equipment as required.
IF exposed or concerned: Get medical advice/ attention.

Avoid release to the environment.

Further precautionary statements can be found in Section 4 – First Aid.

3. Composition / Information on Ingredients

Component	CAS/ Identification	Concentration
Boric acid	10043-35-3	80g/L
Sodium tetraborate pentahydrate	12179-04-3	56g/L
Ingredients not contributing to HSNO classes	Proprietary	balance

This is a commercial product whose exact ratio of components may vary. Trace quantities of impurities are also possible.

4. First Aid

General Information

If medical advice is needed, have product container or label at hand. You should call the National Poisons Centre if you feel that you may have been harmed or irritated by this product. The number is 0800 764 766 (0800 POISON) (24 hr emergency service). IF exposed or concerned: Get medical advice/ attention.

Recommended first aid facilities Ready access to running water is recommended.

Exposure

Swallowed Do NOT induce vomiting. Give a glass of water to drink. Contact a doctor.

Eye contact If product gets in eyes, wash material from them with running water for several minutes. If symptoms persist, seek medical advice.

Skin contact This product is non-irritating to skin. No further measures should be required.

Inhaled Generally, inhalation of fumes is unlikely to result in adverse health effects. If coughing, dizziness or shortness of breath is experienced, remove the patient to fresh air immediately. If patient is unconscious, place in the recovery position (on the side) for transport and contact a doctor.

Advice to Doctor

Treat symptomatically

5. Firefighting Measures

Fire and explosion hazards: There are no specific risks for fire/explosion for this chemical. It is not classed as flammable.

Suitable extinguishing substances: Carbon dioxide, extinguishing powder, foam, fog sprays, water jets.

Unsuitable extinguishing substances: Unknown.

Products of combustion: Carbon dioxide, and if combustion is incomplete, carbon monoxide, oxides of boron and smoke. Water. May form toxic mixtures in air and may accumulate in sumps, pits and other low-lying spaces, forming potentially explosive mixtures.

Protective equipment: Self-contained breathing apparatus. Safety boots, non-flammable overalls, gloves, hat and eye protection.

Hazchem code: NA

6. Accidental Release Measures

Containment If greater than *10000L is stored,* secondary containment and emergency plans to manage any potential spills must be in place.In all cases design storage to prevent discharge to stormwater.

Emergency procedures In the event of a large spill (e.g. >100L) alert the fire brigade to location and give brief description of hazard. Stop the source of the leak, if safe to do so.
Wear protective equipment to prevent skin, eye and respiratory exposure.
Clear area of any unprotected personnel.
Contain using sand, earth or vermiculite.
Prevent by whatever means possible any spillage from entering drains, sewers, or water courses. (If this occurs contact your regional council immediately).

Clean-up method Use absorbent (soil, sand or other inert material). Rags are not recommended for the clean-up of spills, as they may create fire or environmental hazard. Collect and seal in properly labelled containers or drums for disposal. If contamination of crops, sewers or waterways has occurred advise local emergency services.

Disposal	Mop up and collect recoverable material into labelled containers for recycling or salvage. Recycle containers wherever possible. This material may be suitable for approved landfill. Dispose of only in accord with all regulations.
Precautions	Wear protective equipment to prevent skin and eye contamination and the inhalation of vapours. Work up wind or increase ventilation.

7. Storage & Handling

Storage	Avoid storage of harmful substances with food. Store out of reach of children. Containers should be kept closed in order to minimise contamination. Keep from extreme heat and open flames. Avoid contact with incompatible substances as listed in Section 10.
Handling	Keep exposure to a minimum, and minimise the quantities kept in work areas. See section 8 with regard to personal protective equipment requirements.

8. Exposure Controls / Personal Protective Equipment

Workplace Exposure Standards

A workplace exposure standard (WES) has not been established by the NZ Ministry of Business, Innovation and Employment (MBIE) for this product. There is a general limit of 10mg/m^3 for dusts and mists when limits have not otherwise been established.

NZ Workplace Exposure Stds (2013)	Ingredient	WES-TWA	WES-STEL
	Borates anhydrous	1mg/m^3	data unavailable
	Borates decahydrate	5mg/m^3	data unavailable
	Borates pentahydrate	1mg/m^3	data unavailable

Engineering Controls

In industrial situations, it is expected that employee exposure to hazardous substances will be controlled to a level as far below the WES as practicable by applying the hierarchy of control required by the Health and Safety in Employment Act 1992 (HSE). Exposure can be reduced by process modification, use of local exhaust ventilation, capturing substances at the source, or other methods. If you believe air borne concentrations of mists, dusts or vapours are high, you are advised to modify processes or increase ventilation.

Personal Protective Equipment

Eyes	Protective eyewear is not normally necessary when using this product. However, it is always prudent to use protective eyewear if splashes are likely.
Skin	Protective gloves and clothing are not normally necessary. However, it is prudent to wear gloves when handling chemicals in bulk or for an extended period of time.
Respiratory	A respirator when airborne concentrations approach the WES (section 8). Use a respirator with a particulate filter (N95, dust/mist). If using a respirator, ensure that the cartridges are correct for the potential air contamination and are in good working order.

WES Additional Information

Not applicable

9. Physical & Chemical Properties

Appearance	Green liquid
Odour	Odourless
pH	No data
Vapour pressure	No data
Viscosity	No data
Boiling point	No data
Freezing / melting point	No data
Solubility	Soluble in water
Specific gravity / density	~1g/cm^3
Flash point	No data
Danger of explosion	No data
Upper & lower flammable limits	No data
Corrosiveness	non corrosive

10. Stability & Reactivity

Stability	Stable
Conditions to be avoided	Containers should be kept closed in order to avoid contamination. Keep from extreme heat and open flames.
Incompatible groups	None known
Substance Specific Incompatibility	Strong reducing agents, base metals
Hazardous decomposition products	None known
Hazardous reactions	None known

11. Toxicological Information

Summary

IF SWALLOWED: Ingestion of large amounts may cause vomiting and upset stomach.

IF IN EYES: May cause transient stinging or redness.

IF ON SKIN: Product is not considered to be a skin irritant.

IF INHALED: No inhalation hazard identified from data found.

CHRONIC: Exposure to borates may cause effects to the reproductive system.

Supporting Data

Acute	**Oral**	Using LD_{50}'s for ingredients, the calculated LD_{50} (oral, rat) for the mixture is >5,000 mg/kg. Data considered includes: Boric acid 466 mg B/kg (mouse) = 2668 mg/kg (mouse), Sodium tetraborate 3493 mg/kg (rat).
	Dermal	No evidence of dermal toxicity.
	Inhaled	No evidence of inhalation toxicity.
	Eye	The mixture is not considered to be an eye irritant by EPA. Borates and Boric acid may be irritating to the eyes at higher concentrations.
	Skin	The mixture is not considered to be a skin irritant by EPA. Boric acid is a mild skin irritant.
Chronic	**Sensitisation**	No ingredient present at concentrations > 0.1% is considered a sensitizer.
	Mutagenicity	No ingredient present at concentrations > 0.1% is considered a mutagen.
	Carcinogenicity	No ingredient present at concentrations > 0.1% is considered a carcinogen.
	Reproductive / Developmental	The mixture is considered to be a suspected reproductive or developmental toxicant. Animal experiments have shown that ingestion of borates at high doses or over prolonged periods may affect the reproductive system in both males and females.
	Systemic	No ingredient present at concentrations > 1% is considered a target organ toxicant.
	Aggravation of existing conditions	None known.

12. Ecological Data

Summary

This mixture is intended to be used as an ant killer. It is classed as 9.1D due to the biocidal action.

Supporting Data

Aquatic	EPA have classed this mixture as 9.1D due to its biocidal action. Boric acid and other borates are classed 9.1D. Data available for the ingredients: Boric acid and Borax: EC_{50}: 24 mg/L – also considered to be a biocide.
Bioaccumulation	No data for mixture is available.
Degradability	No data for mixture is available.
Soil	No evidence of soil toxicity.
Terrestrial vertebrate	This product is not considered harmful to terrestrial vertebrates. No LC_{50} (diet) data for ingredients are available and the classification is based on the LD_{50} (oral) >5000mg/kg– see section 11 – oral toxicity.
Terrestrial invertebrate	The mixture is considered harmful to terrestrial invertebrate (ants). EPA have not classed this mixture as 9.4.
Biocidal	It is intended to be used as an ant killer
Environmental effect levels	No EELs are available for this mixture or ingredients

13. Disposal Considerations

Restrictions	There are no product-specific restrictions, however, local council and resource consent conditions may apply, including requirements of trade waste consents.
Disposal method	Disposal of this product must comply with the requirements of the Resource Management Act for which approval should be sought from the Regional Authority. The substance must be treated and therefore rendered non-hazardous before discharge to the environment.
Contaminated packaging	Rinse containers with water before disposal. Preferably re-cycle container, otherwise send to landfill or similar.

14. Transport Information

There are no specific restrictions for this product (not a dangerous good).

UN number:	NA	**Proper shipping name:**	NA
Class(es)	NA	**Packing group:**	NA
Precautions:	NA	**Hazchem code:**	NA

15. Regulatory Information

This product is an approved substance under the Hazardous Substances and New Organisms Act (HSNO). Approval code: HSR000692, Ready to use liquid containing 80 g/litre boric acid and 56 g/litre sodium borate.

Specific Workplace Controls (as per HSNO approval referenced to Controls Matrix)

Key workplace requirements are:	
MSDS	To be available within 10 minutes in workplaces storing > 0.1L.
Labelling	No removal of labels and/or decanting of product into other containers can occur.
Emergency plan	Required if > 10000L is stored.
Approved handler	Not required.
Tracking	Not required.
Bunding & secondary containment	Required if > 10000L is stored.
Signage	Required if > 10000L is stored.
Location test certificate	Not required.
Flammable zone	Not required.
Fire extinguisher	Not required.

Note: The above workplace requirements apply if only this particular substance is present. The complete set of controls for a location will depend on the classification and total quantities of other substances present in that location.

Other Legislation

In New Zealand, the use of this product may come under the Resource Management Act and Regulations, the Health, Safety in Employment Act and Regulations, local Council Rules and Regional Council Plans.

16. Other Information

Abbreviations

Approval Code	Approval HSR000692, Ready to use liquid containing 80 g/litre boric acid and 56 g/litre sodium borate Controls, EPA. www.epa.govt.nz
CAS Number	Unique Chemical Abstracts Service Registry Number
Ceiling	Ceiling Exposure Value: The maximum airborne concentration of a biological or chemical agent to which a worker may be exposed at any time.
Controls Matrix	List of default controls linking regulation numbers to Matrix code (e.g. T1, I16).
EC_{50}	Ecotoxic Concentration 50% – concentration in water which is fatal to 50% of a test population (e.g. daphnia, fish species)
ERMA	Environmental Risk Management Authority (now EPA)
EPA	Environmental Protection Agency (previously known as ERMA)
HAZCHEM Code	Emergency action code of numbers and letters that provide information to emergency services, especially fire fighters
HSNO	Hazardous Substances and New Organisms (Act and Regulations)
IARC	International Agency for Research on Cancer
LEL	Lower Explosive Limit
LD_{50}	Lethal Dose 50% – dose which is fatal to 50% of a test population (usually rats).
LC_{50}	Lethal Concentration 50% – concentration in air which is fatal to 50% of a test population (usually rats)
MBIE	Ministry of Business, Innovation and Employment (New Zealand)
MSDS	Material Safety Data Sheet (or Safety Data Sheet)
STEL	Short Term Exposure Limit - The maximum airborne concentration of a chemical or biological agent to which a worker may be exposed in any 15 minute period, provided the TWA is not exceeded
TWA	Time Weighted Average – generally referred to WES averaged over typical work day (usually 8 hours)
UEL	Upper Explosive Limit
UN Number	United Nations Number
WES	Workplace Exposure Standard - The airborne concentration of a biological or chemical agent to which a worker may be exposed.

References

Data	Unless otherwise stated comes from the EPA HSNO chemical classification information database (CCID) http://www.epa.govt.nz/hs/compliance/chemicals.html , for specific chemicals.
EPA Transfer Gazettes	Classifications and controls assigned for specific ingredients (consolidated gazette, 2004)
Controls Matrix	Part of the EPA New Zealand User Guide to the HSNO Control Regulations
WES 2013	The NZ Workplace Exposure Standards Effective from 2013, published by MBIE and available on their web site – www.osh.govt.nz.
Other References:	Suppliers MSDS

Review

Date	**Reason for review**
October 2013	Not applicable – new MSDS

Disclaimer

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