SAFETY DATA SHEET

SECTION 1 - IDENTIFICATION OF THE SUBSTANCE AND SUPPLIER

Product Name:	**Abagel Plus for Horses**
UN Number:	None Allocated
Product Type:	Endoparasiticide
Manufacturer:	Jaychem Industries Ltd.
Address:	3 Kordel Place, East Tamaki, Auckland 2013.
Telephone:	09 274 6647
Fax	09 274 1358

SECTION 2 - HAZARDS IDENTIFICATION

CAUTION
KEEP OUT OF REACH OF CHILDREN
FOR ANIMAL TREATMENT ONLY
Statements of hazard Abamectin may be harmful if swallowed
Repeated exposure may cause skin allergy
Abamectin may cause harm to breast-fed children
Very toxic to aquatic organisms and terrestrial invertebrates
Harmful to the soil environment and terrestrial vertebrates
Precautionary statements Avoid skin contact.
Handle with care to avoid oral and skin exposure.
Do not drink or eat while handling this product. Wash hands after use.
Avoid contamination of any water supply with product or empty container.
Avoid release to the environment.

SECTION 3 - COMPOSITION

Ingredients	CAS number	Amount
Active ingredient:		
Abamectin:	71751-41-2	4.0
Praziquantel	55268-74-1	50.0
Excipients:		
Other excipient ingredients	Not disclosed	946.0

Note: Other
Ingredients in this formulation are being held as a trade secret. For more ingredient information in the event of a medical emergency, contact the telephone number listed in Section 1.

SECTION 4 - FIRST AID MEASURES

Skin Remove contaminated clothing and flush skin with running water. If irritation occurs or persists, get medical attention.
Eyes Immediately flush eyes with water for at least 15 minutes. Get medical attention. If irritation occurs or persists, get medical attention.
Inhalation Remove to fresh air. If not breathing, give artificial respiration. Get medical attention immediately.
Ingestion Get medical attention immediately. Do not induce vomiting unless directed by Medical personnel. Never give anything by mouth to an unconscious person.

SECTION 5 - FIRE FIGHTING MEASURES

Fire fighting instructions Wear approved positive pressure, self-contained breathing apparatus and full
Protective turn out gear. Evacuate area and fight fire from a safe distance.
Extinguishing media Carbon dioxide, dry chemical or alcohol-resistant foam spray extinguishers
Hazardous combustion Non flammable

SECTION 6 - ACCIDENTAL RELEASE MEASURES

General Review Sections 2, 8 and 13 before proceeding with clean up.
Spills/Leaks Wear appropriate protective clothing and prevent material from entering waterways. Absorb spills with inert material and place in waste containers. Wash area with water and absorb with further inert material.

SECTION 7 - HANDLING AND STORAGE

General handling Use only in a well-ventilated area. Avoid contact with eyes. Avoid contact with skin and clothing. Wash thoroughly after handling. When handling wear protective clothing, and waterproof gloves.
Storage conditions Store below 30ºC (Room temperature)
Keep container tightly closed when not in use.

SECTION 8 - EXPOSURE CONTROLS/PERSONAL PROTECTION

Ventilation Engineering controls should be used as the primary means to control exposures. Good general ventilation should be sufficient to control airborne levels. Local and general ventilation should be used as necessary, when handling this material in bulk.
Respiratory protection Respiratory protection is recommended as a precaution to minimize exposure when handling this material in bulk.
Eye protection Safety glasses or goggles
Skin protection Use protective clothing (uniforms, lab coats, disposable coveralls, etc.) in both production and laboratory areas.
Hand protection Rubber gloves

SECTION 9 - PHYSICAL AND CHEMICAL PROPERTIES

Appearance Light blue opaque gel
pH 6.0-7.0
Density 0.96 – 1.06 g/mL
Viscosity @ 20 oC 133,000 – 147,000 mPa.s

SECTION 10 - STABILITY AND REACTIVITY

Stability Stable under normal storage conditions.
Conditions to avoid light, exposure to air, excess heat
Incompatibility materials Not known

SECTION 11 - TOXICOLOGY INFORMATION

ABAMECTIN

Toxicity: Acute toxicity: Abamectin is highly toxic to insects and may be highly toxic to mammals as well.
Emulsifiable concentrate formulations may cause slight to moderate eye irritation and mild skin irritation. Symptoms of
poisoning observed in laboratory animals include pupil dilation, vomiting, convulsions and/or tremors, and coma.
Abamectin acts on insects by interfering with the nervous system. At very high doses, it can affect mammals, causing
symptoms of nervous system depression such as incoordination, tremors, lethargy, excitation, and pupil dilation. Very
high doses have caused death from respiratory failure. Abamectin is not readily absorbed through skin. Tests with
monkeys show that less than 1% of dermally applied abamectin was absorbed into the bloodstream through the skin.
Abamectin does not cause allergic skin reactions. The oral LD50 for abamectin in rats is 10 mg/kg, and in mice ranges
from 14 mg/kg to greater than 80 mg/kg. The dermal LD50 for technical abamectin in rats and rabbits is greater than
330 mg/kg.
Chronic toxicity: In a 1-year study with dogs given oral doses of abamectin, dogs at the 0.5 and 1 mg/kg/day doses
exhibited pupil dilation, weight loss, lethargy, tremors, and recumbency. Similar results were seen in a 2-year study
with rats fed 0.75, 1.5, or 2 mg/kg/day. Rats at all the dosage levels exhibited body weight gains significantly higher
than the controls. A few individuals in the high dose group exhibited tremors. When mice were fed 8 mg/kg/day for 94
weeks, the males developed dermatitis and changes in blood formation in the spleen, while females exhibited tremors
and weight loss.
Reproductive effects: Rats given 0.40 mg/kg/day of abamectin had increased stillbirths, decreased pup viability,
decreased lactation, and decreased pup weights. These data suggest that abamectin may have the potential to cause
reproductive effects at high enough doses.
Teratogenic effects: Abamectin produced cleft palate in the offspring of treated mice and rabbits, but only at doses
that were also toxic to the mothers. There were no birth defects in the offspring of rats given up to 1 mg/kg/day.
Abamectin is unlikely to cause teratogenic effects except at doses toxic to the mother.
Mutagenic effects: Abamectin does not appear to be mutagenic. Mutagenicity tests in live rats and mice were
negative. Abamectin was shown to be nonmutagenic in the Ames test.
Carcinogenic effects: Abamectin is not carcinogenic in rats or mice. The rats were fed dietary doses of up to 2
mg/kg/day for 24 months, and the mice were up to 8 mg/kg/day for 22 months. These represent the maximum
tolerated doses.
Organ toxicity: Animal studies indicate that abamectin may affect the nervous system.
Fate in humans and animals: Tests with laboratory animals show that ingested avermectin B1a is not readily
absorbed into the bloodstream by mammals and that it is rapidly eliminated from the body within 2 days via the
faeces. Rats given single oral doses of avermectin B1a excreted 69 to 82% of the dose unchanged in the faeces. The Value: 406 mg/kg average half-life of avermectin B1a in rat tissue is 1.2 days.
Lactating goats given daily oral doses for 10 days

excreted 89% of the administered avermectin, mainly in the faeces. Less than 1% was recovered in the urine.

6.1D (oral) Praziquantel
Species: rabbit
Endpoint: LD50
Value: 1050 mg/kg

SECTION 12 - ECOLOGICAL INFORMATION

Effects on birds: Abamectin is practically nontoxic to birds. The LD50 for abamectin in bobwhite quail is >2000 mg/kg.
The dietary LC50 is 3102 ppm in bobwhite quail. There were no adverse effects on reproduction when mallard ducks
were fed dietary doses of 3, 6, or 12 ppm for 18 weeks.
Effects on aquatic organisms: Abamectin is highly toxic to fish and extremely toxic to aquatic invertebrates. Its LC50
(96-hour) is 0.003 mg/L in rainbow trout, 0.0096 mg/L in bluegill sunfish, 0.015 mg/L in sheepshead minnows, 0.024
mg/L in channel catfish, and 0.042 mg/L in carp. Its 48-hour LC50 in Daphnia magna, a small freshwater crustacean, is
0.003 mg/L. The 96-hour LC50 for abamectin is 0.0016 mg/L in pink shrimp, 430 mg/L in eastern oysters, and 153
mg/L in blue crab. While highly toxic to aquatic organisms, actual concentrations of abamectin in surface waters
adjacent to treated areas are expected to be low. Abamectin did not bioaccumulate in bluegill sunfish exposed to
0.099 µg/L for 28 days in a flow-through tank. The levels in fish were from 52 to 69 times the ambient water
concentration, indicating that abamectin does not accumulate or persist in fish.
Effects on other organisms: Abamectin is highly toxic to bees, with a 24-hour contact LC50 of 0.002 µg/bee and an
oral LD50 of 0.009 µg/bee.
Breakdown in soil and groundwater: Abamectin is rapidly degraded in soil. At the soil surface, it is subject to rapid
photodegradation, with half-lives of 8 hours to 1 day reported. When applied to the soil surface and not shaded, its
soil half-life is about 1 week. Under dark, aerobic conditions, the soil half-life was 2 weeks to 2 months. Loss of
abamectin from soils is thought to be due to microbial degradation. The rate of degradation was significantly
decreased under anaerobic conditions. Because abamectin is nearly insoluble in water and has a strong tendency to
bind to soil particles, it is immobile in soil and unlikely to leach or contaminate groundwater. Compounds produced by
the degradation of abamectin are also immobile and unlikely to contaminate groundwater.
Breakdown in water: Abamectin is rapidly degraded in water. After initial distribution, its half-life in artificial pond
water was 4 days. Its half-life in pond sediment was 2 to 4 weeks. It undergoes rapid photodegradation, with a half-life
of 12 hours in water. When tested at pH levels common to surface and groundwater (pH 5, 7, and 9), abamectin did
not hydrolyze.
Breakdown in vegetation: Plants do not absorb abamectin from the soil. Abamectin is subject to rapid degradation
when present as a thin film, as on treated leaf surfaces. Under laboratory conditions and in the presence of light, its
half-life as a thin film was 4 to 6 hours.

SECTION 13 - DISPOSAL INFORMATION

Disposal procedure Dispose of unused product and packaging at an approved landfill or equivalent facility

SECTION 14 - TRANSPORTATION INFORMATION

UN number UN 3082
UNDG class Class 9
UN packing group PG III
Hazchem Code 2X
Shipping name Environmentally hazardous substance, liquid, N.O.S.(Abamectin)

SECTION 15 - REGULATORY INFORMATION

ERMA NZ Approval Code HSR002697
HSNO Classifications 6.1E (Acute toxicity)
6.5B (Skin sensitizer)
6.8C (Effects via lactation)
9.1A (Aquatic toxicity)
9.2C (Soil toxicity)
9.3C (Terrestrial vertebrate toxicity)
9.4A (Terrestrial invertebrate toxicity)

SECTION 16 – OTHER INFORMATION

Date of preparation of the Safety Data Sheet 07 July 2015
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