EASYMEC IN FEED BROAD SPECTRUM WORMER AND BOTICIDE FOR HORSES

Abbey Animal Health Pty Ltd
SAFETY DATA SHEET

Section 1- Identification of Product and Supplier

Supplier Company Details: Abbey Animal Health Pty Ltd
Address: Unit 27/ 1 Maitland place, Norwest NSW, 2153
Telephone Number: 02 8088 0720
Facsimile Number: 02 8088 0721

Emergency Number: Australian Poisons Information Centre: 13 11 26 (24 Hour Service).

PRODUCT NAME
EASYMEC IN FEED BROAD SPECTRUM WORMER AND BOTICIDE FOR HORSES

PRODUCT USE
For the treatment and control of roundworms (including arterial larval stages of *Strongylus vulgaris* and benzimidazole resistant small strongyles), bots, and skin lesions caused by *Habronema* and *Draschia* spp. (summer sores) and *Onchocerca* spp. *Microfilariae* (*cutaneous onchocerciasis*) in horses.

Section 2- Hazards Identification

Statement of Hazardous Nature
This product is classified as: Classified as hazardous according to the criteria of SWA.

ADG Classification: None allocated. Not a Dangerous Good according to Australian Dangerous Goods (ADG) Code, IATA or IMDG/IMSBC criteria

GHS Classification:
Acute Toxicity (Oral)- Category 4
Acute Aquatic Hazard- Category 3

GHS Signal word: WARNING

GHS Pictogram:

HAZARD STATEMENT
H302: Harmful if swallowed.
H402: Harmful to aquatic life.

PREVENTION
P264: Wash hands, forearms, and other exposed areas thoroughly after handling.
P270: Do not eat, drink or smoke when using this product.
P273: Avoid release to environment.

RESPONSE
P301+P35P312: IF SWALLOWED: Call a POISON CENTER or doctor/physician if you feel unwell.
P330: Rinse mouth

STORAGE
P411: Store below 25ºC (Air conditioning) in a dry place.
P410: Protect from light.

DISPOSAL
P501: Dispose of contents/container in accordance with local regulations.

Section 3- Composition / Information on Ingredients

INGREDIENTS:

Chemical name	**CAS No.**	**Conc. %**
Ivermectin	70288-86-7	0-0.5%
Non-hazardous ingredients	Secret	up to 100%

This is a commercial product whose exact ratio of components may vary slightly. Minor quantities of other non-hazardous ingredients are also possible.

Section 4- First Aid Measures

Call Poisons Information Centre Phone Australia 131 126, if you feel that you may have been poisoned or irritated by this product.

Skin contact: Flush skin and hair with running water (and soap if available). Seek medical attention in event of irritation.
Eye contact: Wash out immediately with fresh running water. Ensure complete irrigation of the eye by keeping eyelids apart and away from eye and moving the eyelids by occasionally lifting the upper and lower lids. Seek medical attention without delay; if pain persists or recurs seek medical attention. Removal of contact lenses after an eye injury should only be undertaken by skilled personnel.
Ingestion: For advice, contact a Poisons Information Centre or a doctor at once. Urgent hospital treatment is likely to be needed. If swallowed do **NOT** induce vomiting. If vomiting occurs, lean

patient forward or place on left side (head-down position, if possible) to maintain open airway and prevent aspiration.
Observe the patient carefully. Never give liquid to a person showing signs of being sleepy or with reduced awareness, i.e., becoming unconscious. Give water to rinse out mouth, then provide liquid slowly and as much as casualty can comfortably drink. Transport to hospital or doctor without delay.
Inhalation: If fumes, aerosols or combustion products are inhaled remove from contaminated area. Other measures are usually unnecessary.

Section 5- Fire Fighting Measures

Extinguishing media: Foam, dry chemical powder, BCF (where regulations permit), Carbon dioxide or Water spray or fog - Large fires only.
Specific Hazards: Avoid contamination with oxidising agents i.e. nitrates, oxidising acids, chlorine bleaches, pool chlorine etc. as ignition may result.
Firefighting Instructions: Alert Fire Brigade and tell them location and nature of hazard. Wear breathing apparatus plus protective gloves. Prevent, by any means available, spillage from entering drains or water courses. Use water delivered as a fine spray to control fire and cool adjacent area. **DO NOT** approach containers suspected to be hot. Cool fire exposed containers with water spray from a protected location. If safe to do so, remove containers from path of fire. Equipment should be thoroughly decontaminated after use.

Section 6 - Accidental Release Measures

Personal precautions, protective equipment, and emergency procedures

Minor spills: Remove all ignition sources. Clean up all spills immediately. Avoid contact with skin and eyes. Control personal contact with the substance, by using protective equipment. Use dry clean up procedures and avoid generating dust. Place in a suitable, labelled container for waste disposal.

Major spills: Moderate hazard. **CAUTION**: Advise personnel in area. Alert Emergency Services and tell them location and nature of hazard. Control personal contact by wearing protective clothing. Prevent, by any means available, spillage from entering drains or water courses. Recover product wherever possible. **IF DRY:** Use dry clean up procedures and avoid generating dust. Collect residues and place in sealed plastic bags or other containers for disposal. **IF WET:** Vacuum/shovel up and place in labelled containers for disposal. **ALWAYS:** Wash area down with large amounts of water and prevent runoff into drains. If contamination of drains or waterways occurs, advise Emergency Services.

Section 7 - Handling and Storage

Handling: Avoid all personal contact, including inhalation. Wear protective clothing when risk of exposure occurs. Use in a well-ventilated area. Prevent concentration in hollows and sumps. **DO**

NOT enter confined spaces until atmosphere has been checked. **DO NOT** allow material to contact humans, exposed food or food utensils. Avoid contact with incompatible materials. When handling, **DO NOT** eat, drink or smoke. Keep containers securely sealed when not in use. Avoid physical damage to containers. Always wash hands with soap and water after handling. Work clothes should be laundered separately. Launder contaminated clothing before re-use. Use good occupational work practice. Observe manufacturer's storage and handling recommendations contained within this SDS. Atmosphere should be regularly checked against established exposure standards to ensure safe working conditions are maintained. Organic powders when finely divided over a range of concentrations regardless of particulate size or shape and suspended in air or some other oxidizing medium may form explosive dust-air mixtures and result in a fire or dust explosion (including secondary explosions) Minimise airborne dust and eliminate all ignition sources. Keep away from heat, hot surfaces, sparks, and flame. Establish good housekeeping practices. Remove dust accumulations on a regular basis by vacuuming or gentle sweeping to avoid creating dust clouds. Use continuous suction at points of dust generation to capture and minimise the accumulation of dusts. Particular attention should be given to overhead and hidden horizontal surfaces to minimise the probability of a "secondary" explosion. According to NFPA Standard 654, dust layers 1/32 in.(0.8 mm) thick can be sufficient to warrant immediate cleaning of the area. Do not use air hoses for cleaning. Minimise dry sweeping to avoid generation of dust clouds. Vacuum dust-accumulating surfaces and remove to a chemical disposal area. Vacuums with explosion-proof motors should be used. Control sources of static electricity. Dusts or their packages may accumulate static charges, and static discharge can be a source of ignition. Solids handling systems must be designed in accordance with applicable standards (e.g. NFPA including 654 and 77) and other national guidance. Do not empty directly into flammable solvents or in the presence of flammable vapors. The operator, the packaging container and all equipment must be grounded with electrical bonding and grounding systems. Plastic bags and plastics cannot be grounded, and antistatic bags do not completely protect against development of static charges. Empty containers may contain residual dust which has the potential to accumulate following settling. Such dusts may explode in the presence of an appropriate ignition source. Do NOT cut, drill, grind or weld such containers. In addition, ensure such activity is not performed near full, partially empty or empty containers without appropriate workplace safety authorisation or permit.

Storage: Store below 25 °C (Air conditioning) in a dry place. Protect from light.

Section 8 - Exposure Controls / Personal Protection

The following Australian Standards will provide general advice regarding safety clothing and equipment:
Respiratory equipment: **AS/NZS 1715**, Protective Gloves: **AS 2161**, Occupational Protective Clothing: AS/NZS 4501 set 2008, Industrial Eye Protection: **AS1336** and **AS/NZS 1337**, Occupational Protective Footwear: **AS/NZS2210**.

SWA Exposure Limits TWA (mg/m3) STEL (mg/m3)
Exposure limits have not been established by SWA for any of the significant ingredients in this product.

The ADI for Ivermectin is set at 0.01mg/kg/bw. The corresponding NOEL is set at 0.5mg/kg/bw. ADI means Acceptable Daily Intake; NOEL means No-observable-effect-level. Data from Australian ADI List, September 2020.

No special equipment is usually needed when occasionally handling small quantities. The following instructions are for bulk handling or where regular exposure in an occupational setting occurs without proper containment systems.

Appropriate Engineering Controls: Engineering controls are used to remove a hazard or place a barrier between the worker and the hazard. Well-designed engineering controls can be highly effective in protecting workers and will typically be independent of worker interactions to provide this high level of protection.

Personal Protective Equipment: Avoid all unnecessary exposure. Gloves. Safety glasses. Protective clothing. Insufficient ventilation: wear respiratory protection. Chemically resistant materials and fabrics.

Respiratory Protection Type A-P Filter of sufficient capacity. (AS/NZS 1716 & 1715, EN 143:2000 & 149:2001, ANSI Z88 or national equivalent).

Eye Protection/Face Protection: Safety glasses with side shields Chemical goggles. Contact lenses may pose a special hazard; soft contact lenses may absorb and concentrate irritants. A written policy document, describing the wearing of lenses or restrictions on use, should be created for each workplace or task. This should include a review of lens absorption and adsorption for the class of chemicals in use and an account of injury experience. Medical and first-aid personnel should be trained in their removal and suitable equipment should be readily available. In the event of chemical exposure, begin eye irrigation immediately and remove contact lens as soon as practicable. Lens should be removed at the first signs of eye redness or irritation - lens should be removed in a clean environment only after workers have washed hands thoroughly. [CDC NIOSH Current Intelligence Bulletin 59], [AS/NZS 1336 or national equivalent].

Skin/Hand Protection: Suitability and durability of glove type is dependent on usage. Important factors in the selection of gloves include: frequency and duration of contact, chemical resistance of glove material, glove thickness and dexterity. Select gloves tested to a relevant standard (e.g. Europe EN 374, US F739, AS/NZS 2161.1 or national equivalent). When prolonged or frequently repeated contact may occur, a glove with a protection class of 5 or higher (breakthrough time greater than 240 minutes according to EN 374, AS/NZS 2161.10.1 or national equivalent) is recommended. When only brief contact is expected, a glove with a protection class of 3 or higher (breakthrough time greater than 60 minutes according to EN 374, AS/NZS 2161.10.1 or national equivalent) is recommended. Some glove polymer types are less affected by movement and this should be taken into account when considering gloves for long-term use. Contaminated gloves should be replaced. Gloves must only be worn on clean hands. After using gloves, hands should be washed and dried thoroughly. Application of a non-perfumed moisturiser is recommended. Experience indicates that the following polymers are suitable as glove materials for protection against undissolved, dry solids,

where abrasive particles are not present. Polychloroprene, nitrile rubber, butyl rubber, fluorocaoutchouc, polyvinyl chloride.
Overall P.V.C. apron, Barrier cream, Skin cleansing cream, Eye wash unit.

Section 9 - Physical and Chemical Properties

Physical State	Divided Solid
Appearance	Pellets
Odour	Not determine
pH	Not determine
Melting Point	Not determine
Evaporation Rate	Not determine
Boiling Point	Not determine
Flash Point	Not determine
Decomposition Temperature	Not determine
Flammability (solid, gas)	Not determine
Vapor Pressure	Not determine
Water Solubility	Not determine

Section 10 - Stability and Reactivity

Stability: Unstable in the presence of incompatible materials. Product is considered stable. Hazardous polymerisation will not occur.
Reactivity: See section 7.
Conditions to avoid: See section 7.
Incompatible materials: See section 7.
Possibility of Hazardous Reactions: See section 7.
Hazardous Decomposition Products: See section 5.

Section 11 - Toxicological Information

Ivermectin

Dermal (rat)	LD50	>660 mg/kg	Slight irritation to eye.
Oral (rat)	LD50	2-3 mg/kg	Non-irritating to skin.

Therapeutic doses of 0.2 mg/kg do not produce signs of toxicity in a variety of species including humans. There were no gross or histological changes seen in dogs treated with ivermectin for 3 months (no-observed-adverse-effect-level (NOAEL) =0.5 mg/kg/day) or in monkeys treated for 2 weeks (NOAEL = 1.2 mg/kg/day). Changes in the spleen, bone marrow and kidneys were reported in rats treated for 3 months (NOAEL = 0.4 mg/kg/day). Ivermectin produced developmental toxicity in mice, rats and rabbits at or near dosage levels that were maternally toxic (NOAEL = 0.1 mg/kg/day in mice, the most sensitive species). Neonatal rats are about 20 times more susceptible to ivermectin than adult rats because the blood brain barrier is not fully developed until after birth. There has been

no evidence of teratogenicity in controlled studies in pregnant cattle, swine and dogs at up to three times the clinical dose nor has breeding performance been affected in various species.

Reproductive Toxicity: Rats given 0.40 mg/kg/day of ivermectin had increased stillbirths, decreased pup viability, decreased lactation, and decreased pup weights. These data suggest that ivermectin may have the potential to cause reproductive effects at high enough doses.

Teratogenic Toxicity: Ivermectin 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. Ivermectin is unlikely to cause teratogenic effects except at doses toxic to the mother. The targeted clinical dosage of 0.15-0.2 mg/kg and doses in the range of 3 to 12 mg are given according to body weight. Higher dosages (0.4 mg/kg) have been given to patients with lymphatic filariasis. For treatment of onchocerciasis caused by *Onchcerca volvulus*, a leading cause of river blindness in tropical areas), the drug is given only once every six or twelve months. Ivermectin is metabolised in the liver and excreted almost exclusively in the faeces over a period of twelve days. The plasma half-life in man is about 10-12 hours for ivermectin and 3 days for its metabolites. Side-effects are not considered to be due to the toxicity of ivermectin as such but are attributed to hypersensitivity reactions resulting from the death of the microfilariae. In cases of accidental overdose with ivermectin, there have been no fatalities reported; however, symptoms resemble those in animal studies.

Mutagenic Toxicity: Ivermectin does not appear to be mutagenic. Mutagenicity tests in live rats and mice were negative. Ivermectin was shown to be Non mutagenic in the Ames test.

Carcinogenic Toxicity: Ivermectin 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.

Oral (Rat)	LD_{50}	2-3 mg/kg	ADI: 0.8 mg/day

Serious Eye Damage/Irritation: Causes serious eye irritation.

Symptoms

Inhalation: The material is not thought to produce either adverse health effects or irritation of the respiratory tract following inhalation (as classified by EC Directives using animal models). Nevertheless, adverse systemic effects have been produced following exposure of animals by at least one other route and good hygiene practice requires that exposure be kept to a minimum and that suitable control measures be used in an occupational setting. The maximum attainable concentration of 5.11 mg/l ivermectin produced transient irritation of mucous membranes in rats but no deaths or other signs of toxicity after one hour exposure. An acute inhalation study showed a low order of toxicity in animals, but this was attributed to the larger particle size of the sample used in the study. Persons with impaired respiratory function, airway diseases and conditions such as emphysema or chronic bronchitis, may incur further disability if excessive concentrations of particulate are inhaled. If prior damage to the circulatory or nervous systems has occurred or if kidney damage has been sustained, proper screenings should be conducted on individuals who may be exposed to further risk if handling and use of the material result in excessive exposures.

Skin Contact: Skin contact is not thought to produce harmful health effects (as classified under EC Directives using animal models). Systemic harm, however, has been identified following exposure of animals by at least one other route and the material may still produce health damage following entry through wounds, lesions or abrasions. Good hygiene practice requires that exposure be kept to a minimum and that suitable gloves be used in an occupational setting. Tests with monkeys show that less than 1% of dermally applied ivermectin was absorbed into the bloodstream through the skin. Ivermectin does not cause allergic skin reactions Open cuts, abraded or irritated skin should not be exposed to this material Entry into the bloodstream through, for example, cuts, abrasions, puncture wounds or lesions, may produce systemic injury with harmful effects. Examine the skin prior to the use of the material and ensure that any external damage is suitably protected.

Eye Contact: Although the material is not thought to be an irritant (as classified by EC Directives), direct contact with the eye may cause transient discomfort characterised by tearing or conjunctival redness (as with windburn). Slight abrasive damage may also result. The material may produce foreign body irritation in certain individuals.

Ingestion: Accidental ingestion of the material may be harmful; animal experiments indicate that ingestion of less than 150 gram may be fatal or may produce serious
damage to the health of the individual.
No major toxicity has been observed to date following ivermectin treatment of humans. Systemic reactions include fever, rash and lymph-node pain or swelling. Ocular reactions have been minimal. Acute rodent studies show that ivermectin is highly toxic; rodents may not however be a good model for humans, in this case, as they appear to be more sensitive to the effects of ivermectin. The dose-response curve for primates is relatively flat compared to rodents, suggesting that serious or life-threatening toxicity would only occur at higher multiples of the doses that cause clinical evidence of toxicity. Signs of toxicity reported in acute studies include ataxia (incoordination), bradypnea (slowed breathing), emesis (vomiting), mydriasis (dilated pupils), sedation and tremors. Similar signs indicative of central nervous system toxicity were also observed in repeat dose studies at elevated dosages. Based on studies in animals and case of accidental ingestion in humans, overexposure to ivermectin may produce drowsiness, depressed motor activity, slowed breathing, dilation of the pupils, tremors, vomiting, anorexia and incoordination.

Delayed (chronic) effects: Long term exposure to high dust concentrations may cause changes in lung function (i.e., pneumoconiosis) caused by particles less than 0.5 micron penetrating and remaining in the lung. A prime symptom is breathlessness. Ivermectin produced developmental toxicity in animals only at or near dose levels that were maternally toxic. No evidence of genotoxicity was found in a battery of assays.

Section 12 - Ecological Information

Ivermectin:

Endpoint	Test Duration (hr)	Species	Value	Source

BCF	672	Fish	0.000099mg/L	4
NOEC	96	Crustacea	2.6mg/L	4

Bioaccumulative potential: No data available**.**

Section 13 - Disposal Considerations

Disposal
[15 g- 1 kg]
Dispose of container by wrapping with paper and putting in garbage.

[5 kg, 25 kg]
Shake container into medicated feed. Do not dispose of undiluted chemicals on-site. Break, crush, or puncture container and deliver to an approved waste management facility. If an approved waste management facility is not available, bury the punctured containers 500 mm below the surface in a disposal pit specifically marked and set up for this purpose clear of waterways, vegetation and tree roots, in compliance with relevant local, state or territory government regulations. Do not burn empty containers or product.

Section 14 - Transport Information

No specific transport considerations apply since *EASYMEC IN FEED BROAD SPECTRUM WORMER AND BOTICIDE FOR HORSES* is NOT classified as a dangerous good according to Australian Dangerous Goods (ADG) Code.

Section 15 - Regulatory Information

Poisons Schedule: *S5*

APVMA Approval Number: *55455*

Pack size: *15 g - 333 g,1 kg - 25 kg*

For more information, please refer to the APVMA approved product label

Section 16 – Other Information

Abbey Animal Health Pty Ltd

Telephone Number: 02 8088 0720
Facsimile Number: 02 8088 0721

Emergency Number: Australian Poisons Information Centre: 13 11 26 (24 Hour service).

This Safety Data Sheet (SDS) summarizes our best knowledge of the health and safety hazard information of the product according to the GHS requirements and how to safely handle and use the product in the workplace.

Each user must review this SDS in the context of how the product will be handled and used in the workplace.

If clarification or further information is needed to ensure that an appropriate risk assessment can be made, the user should contact this company.

***Note: This SDS is valid for 5 years from the effective date.**