



ExiShield GOLD

DUAL ACTIVE POUR ON LICE CONTROL

Abbey Animal Health Pty Ltd
SAFETY DATA SHEET

Section 1- Identification of Product and Supplier

Supplier Company Details: Abbey Animal Health Pty Ltd

Address: 16 Voyager Circuit Glendenning NSW 2761

Telephone Number: 02 8088 0720

Facsimile Number: 02 8088 0721

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

PRODUCT NAME

ExiShield GOLD DUAL ACTIVE POUR ON LICE CONTROL

PRODUCT USE

For the treatment and control of susceptible strains of lice (*Bovicola ovis*) on sheep, including synthetic pyrethroid resistant lice, when applied up to 7 days after shearing. Sheep will be protected against re-infestation with lice for 5 weeks after treatment when applied within 24 hours of shearing.

Section 2- Hazards Identification

Statement of Hazardous Nature

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

ADG Classification: Not a Dangerous Good according to Australian Dangerous Goods (ADG) by Road or Rail in Australia, in packages 500kg(L) or less; or IBCs. Code, IATA or IMDG/IMSBC criteria. CLASSIFIED AS DANGEROUS GOODS when transported by sea or air. Refer to Section 14.

GHS Classification:

Category 2 - Skin irritation

Category 2B- Eye irritation

Category 4- Flammable liquids

Category 4- Acute Toxicity Oral

Category 4- Acute Toxicity Inhalation

Category 3- Single Exposure- Specific Target Organ Toxicity

Category 1B- Reproductive Toxicity

GHS signal word: DANGER

PICTOGRAM:



HAZARD STATEMENT

- H227: Combustible liquid.
- H302: Harmful if swallowed.
- H315: Causes skin irritation.
- H320: Causes serious eye irritation.
- H332: Harmful if inhaled.
- H335: May cause respiratory irritation.
- H360: May damage fertility or the unborn child.

PREVENTION

- P202: Do not handle until all safety precautions have been read and understood.
- P210: Keep away from heat, sparks, open flames and hot surfaces. - No smoking.
- P261: Avoid breathing fumes, mists, vapours or spray.
- P262: Do not get in eyes, on skin, or on clothing.
- P270: Do not eat, drink or smoke when using this product
- P271: Use only outdoors or in a well-ventilated area.
- P273: Avoid release to the environment.
- P280: Wear protective gloves, protective clothing and eye or face protection.

RESPONSE

- P362: Take off contaminated clothing and wash before reuse.
- P301+P312: IF SWALLOWED: Call a POISON CENTRE or doctor if you feel unwell.
- P301+P330+P331: IF SWALLOWED: Rinse mouth. Do NOT induce vomiting.
- P302+P352: IF ON SKIN: Wash with plenty of soap and water.
- P304+P340: IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing.
- P305+P351+P338: IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
- P308+P313: If exposed or concerned: Get medical advice.
- P332+P313: If skin irritation occurs: Get medical advice.
- P337+P313: If eye irritation persists: Get medical advice.
- P370+P378: In case of fire, use carbon dioxide, dry chemical, foam, water fog.

STORAGE

- P404: Store in a closed container.
- P410: Protect from sunlight.
- P403+P235: Store in a well-ventilated place. Keep cool.

DISPOSAL

P501: Dispose of contents and containers as specified on the registered label.

Section 3- Composition / Information on Ingredients

INGREDIENTS:

Chemical Name	CAS Number	Conc., g/L
Abamectin	71751-41-2	0.1- 1%
Imidacloprid	138261-41-3	1-10%
N-Methyl-2-pyrrolidone	34590-94-8	10-30%
Dipropylene glycol monomethyl ether	34590-94-8	>60
Non-hazardous Ingredients	Secret	Secret

This is a commercial product whose exact ratio of components may vary slightly. Minor quantities of other nonhazardous ingredients are also present.

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.

Swallowed: 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. Seek medical advice.

Skin: Wash gently and thoroughly with warm water (use non-abrasive soap if necessary) for 10-20 minutes or until product is removed. Under running water, remove contaminated clothing, shoes and leather goods (e.g. watchbands and belts) and completely decontaminate them before reuse or discard. If irritation persists, repeat flushing and seek medical attention.

Eye: Immediately flush the contaminated eye(s) with lukewarm, gently flowing water for 15 minutes or until the product is removed, while holding the eyelid(s) open. Take care not to rinse contaminated water into the unaffected eye or onto the face. Obtain medical attention immediately. Take special care if exposed person is wearing contact lenses.

Inhaled: If symptoms of poisoning become evident, contact a Poisons Information Centre, or call a doctor at once. Remove source of contamination or move victim to fresh air. If breathing is difficult, oxygen may be beneficial if administered by trained personnel, preferably on a doctor's advice. DO NOT allow victim to move about unnecessarily. Symptoms of pulmonary oedema can be delayed up to 48 hours after exposure.

Section 5- Fire Fighting Measures

Extinguishing Media: In case of fire, use carbon dioxide, dry chemical, foam or water fog. Alcohol resistant foam is the preferred firefighting medium but, if it is not available, normal foam can be used. Try to contain spills, minimise spillage entering drains or water courses.

Fire/Explosion Hazard: The major hazard in fires is usually inhalation of heated and toxic or oxygen deficient (or both), fire gases. There is little risk of an explosion from this product if commercial quantities are involved in a fire.

Fire decomposition products from this product are likely to be toxic and corrosive if inhaled. Take appropriate protective measures.

Hazardous Combustion Products: no data available.

Precautions for fire fighters: Alert Fire Brigade and tell them location and nature of hazard. Wear full body protective clothing with breathing apparatus.

Prevent, by any means available, spillage from entering drains or water course. Use water delivered as a fine spray to control fire and cool adjacent area. Avoid spraying water onto liquid pools. **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.

Section 6 - Accidental Release Measures

Minor Spills: Environmental hazard - contain spillage. Clean up all spills immediately. Avoid breathing vapours and contact with skin and eyes. Control personal contact with the substance, by using protective equipment. Contain and absorb spill with sand, earth, inert material or vermiculite. Wipe up. Place in a suitable, labelled container for waste disposal.

Method of Containment and Clean up Procedures for Major spills: Environmental hazard - contain spillage. Moderate hazard. Clear area of personnel and move upwind. 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 course. No smoking, naked lights or ignition sources. Increase ventilation. Stop leak if safe to do so. Contain spill with sand, earth or vermiculite. Collect recoverable product into labelled containers for recycling. Absorb remaining product with sand, earth or vermiculite.

Collect solid residues and seal in labelled drums for disposal. Wash area and prevent runoff into drains. If contamination of drains or waterways occurs, advise emergency services.

Section 7 - Handling and Storage

Safe Handling: The tendency of many ethers to form explosive peroxides is well documented. Ethers lacking non-methyl hydrogen atoms adjacent to the etherlink are thought to be relatively safe **DO NOT** concentrate by evaporation, or evaporate extracts to dryness, as residues may contain explosive peroxides with DETONATION potential. Any static discharge is also a source of hazard. Before any distillation process remove trace peroxides by shaking with excess 5% aqueous ferrous sulfate solution or by percolation through a column of activated alumina. Distillation results in uninhibited ether distillate with considerably increased hazard because of risk of peroxide formation on storage. Add inhibitor to any distillate as required. When solvents have been freed from peroxides by percolation through columns of activated alumina, the absorbed peroxides must promptly be desorbed by treatment with polar solvents such as methanol or water, which should then be disposed of safely. The substance accumulates peroxides which may become hazardous only if it evaporates or is distilled or otherwise treated to concentrate the peroxides. The substance may concentrate around the container opening for example.

Purchases of peroxidisable chemicals should be restricted to ensure that the chemical is used completely before it can become peroxidised. A responsible person should maintain an inventory of peroxidisable chemicals or annotate the general chemical inventory to indicate which chemicals are subject to peroxidation. An expiration date should be determined. The chemical should either be treated to remove peroxides or disposed of before this date. The person or laboratory receiving the chemical should record a receipt date on the bottle. The individual opening the container should add an opening date.

Unopened containers received from the supplier should be safe to store for 18 months. Opened containers should not be stored for more than 12 months. 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. Avoid smoking, naked lights or ignition sources. 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. 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.

Storage: Store below 30°C (room temperature). Store in original container, tightly closed in a safe 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/NZS1715**, Protective Gloves: **AS2161**, 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)
N-Methyl-2-pyrrolidone	103	309
dipropylene glycol monomethyl ether	308	N/A

The ADI for Abamectin is set at 0.001mg/kg/day. The corresponding NOEL is set at 0.12mg/kg/day. The ADI for Imidacloprid is set at 0.06mg/kg/day. The corresponding NOEL is set at 6mg/kg/day. ADI means Acceptable Daily Intake; NOEL means No-observable-effect-level. Data from Australian ADI List, June 2022.

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.

Ventilation: This product should only be used in a well-ventilated area. If natural ventilation is inadequate, use of a fan is suggested. Harmful if inhaled or swallowed. Do not inhale vapour. Ensure adequate ventilation during use to prevent build-up of fumes.

Eye Protection: Eye protection such as protective glasses or goggles is recommended when this product is being used.

Skin Protection: Prevent skin contact by wearing impervious gloves, clothes and, preferably, apron. Make sure that all skin areas are covered. See below for suitable material types.

Protective Material Types: We suggest that protective clothing be made from the following materials: butyl rubber.

Respirator: Usually, no respirator is necessary when using this product. However, if you have any doubts consult the Australian Standard mentioned above.

Eyebaths or eyewash stations and safety deluge showers should, if practical, be provided near to where this product is being handled commercially.

Section 9 - Physical and Chemical Properties

Physical Description & colour	Clear Blue solution
Odour	Not Available.
Boiling Point	Not Available.
Freezing/Melting Point	Not Available.
Volatiles	Not Available.
Vapour Pressure	Not Available.
Flashpoint(°C)	Not Available.

Vapour Density

Not Available.

Water Solubility

Not Available.

Section 10 - Stability and Reactivity

Reactivity: This product is unlikely to react or decompose under normal storage conditions. However, if you have any doubts, contact the supplier for advice on shelf-life properties

Chemical stability: no data

Conditions to Avoid: Protect this product from light. Store in the closed original container in a dry, cool, well-ventilated area out of direct sunlight.

Incompatibilities: No data.

Possibility of hazardous reactions: None

Hazardous decomposition products: No data.

Section 11 - Toxicological Information

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 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.

Abamectin is a SWA Class 3 Reproductive risk.

N-methyl-2-pyrrolidone is a SWA Class 2 Reproductive risk, may cause harm to the unborn child.

Potential Health Effects

Inhalation:

Short Term Exposure: Available data shows that this product is harmful, but symptoms are not available. In addition, product is an inhalation irritant. Symptoms may include headache, irritation of nose and throat and increased secretion of mucous in the nose and throat. Other symptoms may also become evident, but they should disappear after exposure has ceased.

Long Term Exposure: No data for health effects associated with long term inhalation.

Skin Contact:

Short Term Exposure: This product is a skin irritant. Symptoms may include itchiness and reddening of contacted skin. Other symptoms may also become evident, but if treated promptly, all should disappear once exposure has ceased.

Long Term Exposure: No data for health effects associated with long term skin exposure.

Eye Contact:

Short Term Exposure: This product is an eye irritant. Symptoms may include stinging and reddening of eyes and watering which may become copious. Other symptoms may also become evident. If exposure is brief, symptoms should disappear once exposure has ceased. However, lengthy exposure or delayed treatment may cause permanent damage.

Long Term Exposure: No data for health effects associated with long term eye exposure.

Ingestion:

Short Term Exposure: Significant oral exposure is considered to be unlikely. Available data shows that this product is harmful, but symptoms are not available. However, this product is an oral irritant. Symptoms may include burning sensation and reddening of skin in mouth and throat. Other symptoms may also become evident, but all should disappear once exposure has ceased.

Long Term Exposure: No data for health effects associated with long term ingestion.

Section 12 - Ecological Information

This product is very toxic to aquatic organisms. Insufficient data to be sure of status.

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 hydrolyse.

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 Considerations

DISPOSAL: Containers may still present a chemical hazard/ danger when empty. Return to supplier for reuse/ recycling if possible. Otherwise: If container cannot be cleaned sufficiently well to ensure that residuals do not remain or if the container cannot be used to store the same product, then puncture containers, to prevent re-use, and bury at an authorised landfill. Where possible retain label warnings and SDS and observe all notices pertaining to the product.

DO NOT allow wash water from cleaning or process equipment to enter drains. It may be necessary to collect all wash water for treatment before disposal. In all cases disposal to sewer may be subject to local laws and regulations and these should be considered first. Where in doubt contact the responsible authority. Recycle wherever possible or consult manufacturer for recycling options. Consult State Land Waste Authority for disposal. Bury or incinerate residue at an approved site. Recycle containers if possible or dispose of in an authorised landfill.

Section 14 - Transport Information

No specific transport considerations apply since *ExiShield GOLD DUAL ACTIVE POUR ON LICE CONTROL* is NOT classified as a dangerous good according to Australian Dangerous Goods (ADG) Code by Road or Rail in Australia, in packages 500kg(L) or less; or IBCs,.

CLASSIFIED AS DANGEROUS GOODS when transported by sea or air.

IATA

UN NO.: 3082

UN proper shipping name: Environmentally hazardous substance, liquid, n.o.s. * (contains imidacloprid)

Class & Subsidiary Risk: 9

Packaging Group: III

Environmental hazards: Environmentally hazardous

IMDG

UN NO.: 3082

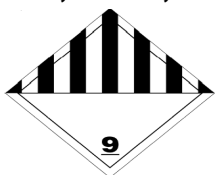
UN proper shipping name: ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (contains imidacloprid)

Class & Subsidiary Risk: 9

Packaging Group: III

Marine Pollutant:

IATA; IMDG; RID



Marine Pollutant:



Section 15 - Regulatory Information

Poisonous Schedule: S6

APVMA Approval Number: 92535

Approved pack size: 5L 10L 15L 20L 22L 25L 55L 60L100L 110L 120L

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) summarises our best knowledge of the health and safety hazard information of the product 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.**