SAFETY DATA SHEET **A18211/11/AUS**

AVENGE + FLY BLOWFLY STRIKE PREVENTION AND LOUSICIDE FOR SHEEP

SECTION 1 – IDENTIFICATION, CONTACTS	
Bayer Australia Ltd 875 Pacific Highway Pymble NSW 2073	**Emergency Telephone Number** 1800 033 111 24 hour Emergency Service Australia Wide, Toll Free **Contact Point (for non-emergency calls)** Animal Health Division **Telephone Number:** (02) 9391-6000
Product Name	**Avenge + fly blowfly strike prevention and lousicide for sheep**
Product Use	For the prevention of blowfly strike in sheep in long or short wool. For the control of neonicotinoid susceptible body lice (*Bovicola ovis*).
Other Names	Imidacloprid
Creation Date	22nd November 2005
Revision Date	24 January 2019

SECTION 2 – HAZARD IDENTIFICATION	
Hazard Classification	HAZARDOUS SUBSTANCE NOT CLASSIFIED AS DANGEROUS GOODS when transported by road or rail within Australia under Special Provision AU01 of the Australian Dangerous Goods Code, 7th Edition. CLASSIFIED AS DANGEROUS GOODS when transported by sea or air.
GHS-Classification	**Eye Irritation, Category 2** **Specific target organ toxicity (single exposure), Category 3** **Reproductive toxicity, Category 1B** **Hazardous to the aquatic environment, Category 1**
Signal Word	**Danger**
Hazard Statements	**H319 Causes serious eye irritation** **H335 May cause respiratory irritation** **H360D May damage the unborn child** **H401 Very toxic to aquatic organisms**
Precautionary statements	**Prevention:** P201 Obtain special instructions before use. P202 Do not handle until all safety precautions have been read and understood. P264 Wash hands thoroughly after handling. P280 Wear protective eye protection. P261 Avoid breathing vapours. P271 Use only outdoors or in a well-ventilated area. P273 Avoid release to the environment. **Response:** P305 + P351 + P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. P337 + P313 If eye irritation persists: Get medical advice/attention. P304 + P340 IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing. P312 Call a POISON CENTER or doctor/physician if you feel unwell. **Storage**: P405 Store locked up. **Disposal:** P501 Dispose of contents/container in accordance with local regulations.

SECTION 3 – COMPOSITION/INFORMATION ON INGREDIENTS	
Hazardous Components	**Imidacloprid** Concentration [Weight percent] 1- >5 CAS-No.: 138261-41-3 CAS name: 2-Imidazolidinimine, 1-((6-chloro-3-pyridinyl)methyl)-N-nitro GHS Classification: Acute Tox. 4 H302 Aquatic Acute 1 H400 Aquatic Chronic 1 H410 **1-Methyl-2-pyrrolidone** Concentration [Weight percent] >= 25 - < 40 CAS-No.: 872-50-4 CAS name: 2-Pyrolidinone, 1-Methyl- GHS Classification: Repr. 1B H360D Eye Irrit. 2 H319 STOT SE 3 H335 Skin Irrit. 2 H315 **Also contains** **Dipropylene glycol methyl ether** Concentration [Weight percent] >= 30 - < 60 CAS-No.: 34590-94-8 CAS name: Methoxymethylethoxy propanol

SECTION 4 – FIRST AID MEASURES	
General	Avoid exposure if pregnant.
Inhalation	Remove victim to fresh air and keep at rest in a position comfortable for breathing. Seek medical attention if required.
Skin contact	Remove contaminated clothing. Wash affected area immediately with soap and water. Seek medical attention if required.
Eye contact	Flush eye immediately with large amounts of water or normal saline, occasionally lifting eyelids, until no evidence of chemical remains. Remove contact lenses, if present and easy to do. If eye irritation persists: Get medical advice/attention.
Ingestion	If vomiting occurs keep head lower than hips to help prevent aspiration. Seek medical attention if required.
Advice to doctor	Imidacloprid is a nicotinic acetylcholine receptor inhibitor. In mammals this receptor type is present in low numbers and has low affinity for imidacloprid. Systemic toxicity with this product is unlikely but if it occurs would produce nicotine-like effects. The solvent, 1-Methyl-2-pyrrolidone is harmful if inhaled or swallowed.

SECTION 5 – FIRE FIGHTING MEASURES	
Extinguishing Media	Sprayed water jet, foam, dry powder, CO_2, sand.
Fire and Explosion Hazards	Combustible product. Product has a flash point of 88°C.
Hazardous Combustion Products	Thermal decomposition products include hydrogen chloride, hydrogen cyanide, carbon monoxide, and nitrogen oxides.
Fire Fighting	Fight fire in the early stages if safe to do so. Wear respiratory protection. In well ventilated areas wear full face mask with a combination filter. (Offers no protection from carbon monoxide) In enclosed premises: respirator with independent air supply. Contain firefighting water.

SECTION 6 – ACCIDENTAL RELEASE MEASURES	
Accidental Release	Take all possible steps to prevent spillage from spreading or entering soil, waterways and drains. Take up with absorbent material such as vermiculite, peat or chemical binder. Fill material along with any contaminated soil etc., into sealable containers. Clean affected area with an aqueous detergent and a small amount of water. Absorb this with hydrated lime and place in a sealable container. Spread hydrated lime over the affected area. On completion of clean-up remove and wash all protective clothing and equipment with detergent and water. Place cleaning materials into the same container. Do not eat, drink or smoke during clean-up operation.

SECTION 7 – HANDLING AND STORAGE	
Safe Handling	Keep away from heat, sparks and flame. If the product contacts a hot surface, or comes into contact with sparks or flame, there is a risk that the product may combust. Avoid exposure if pregnant.
Storage	Keep out of reach of children. Store away from food, drink or animal feeding stuffs. To maintain product quality, store below 30°C (room temperature). Keep away from heat or moisture. All necessary directions, precautions and warnings for normal use of the product are included on the product label.

SECTION 8 – EXPOSURE CONTROLS AND PERSONAL PROTECTION	
Exposure Limits	**Dipropylene glycol methyl ether** TWA (mg/m^3) 308 Absorption through the skin may be a significant source of exposure **1-Methyl-2-pyrrolidone:** Time Weighted Average: 25ppm (103mg/m3) Short Term Exposure Limit: 75ppm (309mg/m3) No exposure standards allocated for imidacloprid.
Ventilation	Harmful if inhaled or swallowed. Do not inhale vapour. Ensure adequate ventilation during use to prevent build-up of fumes.
Eye Protection	Will irritate the eyes. Avoid contact with eyes. If product in eyes, wash out immediately with water.
Skin Protection	If skin irritation occurs immediately wash area with soap and water. After use and before eating drinking or smoking, wash hands arms and face thoroughly with soap and water.
Respirator	No respirator is required under normal conditions of use.
Protective Material Types	Butyl rubber
General Advice	After use and before eating, drinking or smoking, wash hands, arms and face thoroughly with soap and water. After each day's use, wash gloves and contaminated clothing.

SECTION 9 – PHYSICAL & CHEMICAL PROPERTIES	
Physical State	Clear liquid
Colour	Blue
Odour	Mild ether like aroma
Boiling Point	Not available
Solidifying point	Not available
Density	0.982 kg/L at 20°C
Vapour Pressure	0.4×10^{-9} mbar at 20° C (active constituent)
Viscosity	No statements available
Solubility in Water	2.5×10^{-5} g/L at 20° C (active constituent). The formulation is miscible with water.
pH	No statements available
Flash Point	88°C (DIN 51758)
Ignition Temperature	No statements available
Explosive Limits	No statements available

SECTION 10 – STABILITY & REACTIVITY	
Chemical Stability	Product is chemically stable. Product is hygroscopic.
Conditions to Avoid	Avoid oxidising agents.
Incompatible Materials	None
Hazardous Decomposition	Thermal decomposition products include hydrogen chloride, hydrogen fluoride, carbon monoxide, and nitrogen oxides.
Hazardous Reactions	None

SECTION 11 – TOXICOLOGICAL INFORMATION	
Acute Toxicity	Oral LD_{50} (rat) ≥5000 mg/kg, female, (of formulation) according to OECD criteria
	Dermal LD_{50} (rat) >2000 mg/kg, male and female, (of formulation) according to OECD criteria
Local Effects	Eye: irritant.
	Non-corrosive to skin according to OECD test criteria.
	Non-sensitising to the skin according to OECD test criteria.
Reproductive Effects	Imidacloprid has been shown in animal tests to have no reproductive effects. At high levels, N-methyl-2-pyrrolidone has been shown to reduce foetal bodyweights in rats. Avoid exposure if pregnant.
Mutagenicity	None of the ingredients of the formulation have been shown to produce mutagenic effects.
Carcinogenic Effects	Imidacloprid has been shown in animal tests to have no carcinogenic potential. Other ingredients are not classified as carcinogens.

SECTION 12 – ECOLOGICAL INFORMATION	
Octanol/Water Partition Co-efficient	Log Kow = 1.26 at 20°C
Ecotoxicity	**Fish toxicity**
(Imidacloprid)	LC_{50}: 237 mg/L (96h); golden orfe (*Leuciscus idus*)
	LC_{50}: 211 mg/L (96h); rainbow trout (*Salmo gairdneri*)
	Aquatic invertebrate toxicity
	Daphnia toxicity (active constituent)
	EC_{50}: 0.055 mg/L (48h) (*Hyalella azteca*)
	Algae toxicity
	IC_{50} (growth rate): >10 mg/L (96h); green algae (*Scenedesmus subspicatus*)
	Highly toxic to aquatic invertebrates. Slightly toxic to algae, moderately to slightly toxic to earthworms, moderately toxic to honeybees.
	Do not contaminate dams, ponds, rivers, waterways or drains with the pesticide or used containers.

SECTION 13 – DISPOSAL INFORMATION	
After Intended Use	This container can be recycled if it is clean, dry, free of visible residues and has the drumMUSTER logo visible. Triple or pressure rinse container for disposal. Dispose of rinsate or any undiluted chemical according to State legislative requirements. Wash outside of the container and the cap. Store cleaned container in a sheltered place with cap removed. It will then be acceptable for recycling at any drumMUSTER collection or similar container management program site. The cap should not be replaced but may be taken separately.
After spill or accident	Dispose of sealed containers at an approved local waste disposal site.

SECTION 14 – TRANSPORT INFORMATION	
UN No	3082
UN Proper Shipping Name	Environmentally Hazardous Substance, Liquid, NOS (Imidacloprid)
Class & Subsidiary Risk	9
Packaging Group	III
Hazchem Code	3Z
Special Note	NOT CLASSIFIED AS DANGEROUS GOODS when transported by road or rail within Australia under Special Provision AU01 of the Australian Dangerous Goods Code, 7th Edition. CLASSIFIED AS DANGEROUS GOODS when transported by sea or air.

SECTION 15 – REGULATORY INFORMATION	
Poisons Schedule	Schedule 5
APVMA Registration	This product is registered by the APVMA.
Registration Number	62598
Labelling	All necessary directions, precautions and warnings for normal use of the product are included on the product label.

SECTION 16 – OTHER INFORMATION	
Summary of Changes	Update product name.
Acronyms	**ADG** Code Australian Code for the Transport of Dangerous Goods by Road and Rail **APVMA** Australian Pesticides and Veterinary Medicines Authority **CAS** Chemical Abstracts Service Registry Number **GHS** Globally Harmonized System of Classification and Labelling of Chemicals **HDPE** High density polyethylene **LDPE** Low density polyethylene **OECD** Organisation for Economic Co-operation and Development **STOT** Specific Target Organ Toxicity **SUSDP** Standard for the Uniform Scheduling of Drugs and Poisons **TWA** Time Weighted Average – average airborne concentration of a particular substance when calculated over a normal eight-hour working day, for a five-day working week. **UN Number** United Nations number
Disclaimer	This Safety Data Sheet has been developed according to the Globally Harmonized System of Classification and Labelling of Chemicals (GHS) Third revised edition. United Nations, 2009. The data, information and recommendations herein ("information") are represented in good faith and believed to be correct as of the date hereof. The purpose of this Safety Data Sheet is to describe product in terms of their safety requirements. Bayer Australia Limited makes no representation of merchantability, fitness for a particular purpose or application, or of any other nature with respect to the information or the product to which the information refers ("the product"). The information is supplied upon the condition that the persons receiving same will make their own determination as to its suitability for their purposes prior to use of the product. The physical data shown herein are typical values based on material tested. These values should not be construed as a guaranteed analysis of any specific lot or as guaranteed specification for the product or specific lots thereof. Due care should be taken to make sure that the use or disposal of this product and / or its packaging is in compliance with relevant Federal, State and Local Government regulations.

END OF SDS