SAFETY DATA SHEET

SECTION 1 IDENTIFICATION OF THE MATERIAL AND SUPPLIER

Product Name: **Apparent Expunge 600 SC Insecticide**

Other Names: Imidacloprid. Group 4A Insecticide.
Use: Agricultural Insecticide for control of various insect pests.
Company: Apparent Pty Ltd
Address: Suite G.08, 762 Toorak Road, Hawthorn East, Vic. 3123.
PO Box 3092, Cotham PO, Kew, Vic 3101
ACN/ABN: 143 724 136
Telephone Number: 03 9822 1321
Email: enquiries@apparentag.com.au
Emergency Contact: 0411 227 338

SECTION 2 HAZARDS IDENTIFICATION

Classified as hazardous according to criteria of Safe Work Australia.
Not classified as a Dangerous Good according to the ADG Code.

GHS Classification:
Acute Toxicity- Dermal: Category 4.
Sensitization – Skin: Category 1, 1A, 1B.
Hazardous to the Aquatic Environment – Acute Hazard: Category 1.
Hazardous to the Aquatic Environment – Long-Term Hazard: Category 4.

Signal Word: WARNING.

Hazard Statements:
H302 Harmful if swallowed.
H317 May cause an allergic skin reaction.
H400 Very toxic to aquatic life.
H413 May cause long lasting harmful effects to aquatic life.

Precautionary statements:
Prevention:
P261 Avoid breathing mist, vapours or spray.
P264 Wash hands. Arms and face thoroughly after handling.
P270 Do not eat, drink or smoke when using this product.
P272 Contaminated work clothing should not be allowed out of the workplace.
P273 Avoid release to the environment.
P280 Wear protective gloves/protective clothing/eye protection/face protection.

Response:
P301 + P312 IF SWALLOWED: Call a POISON CENTER or doctor/physician if feel unwell.
P302 + P352 IF ON SKIN: Wash with plenty of soap and water.
P321 Specific treatment (see Safety Directions on this label).
P330 Rinse mouth.
P333 + P313 If skin irritation or rash occurs: Get medical advice/attention.
P363 Wash contaminated clothing before reuse.
P391 Collect spillage.

Disposal:
P501 Dispose of contents/container in accordance with national regulations.

SECTION 2 HAZARDS IDENTIFICATION (Continued)

Pictogram:

SECTION 3 COMPOSITION/INFORMATION ON INGREDIENTS

Ingredients:

CHEMICAL	*CAS NUMBER*	*PROPORTION*
Imidacloprid	138261-41-3	600 g/L
Glycerine	56-81-5	0 - 10%
Other ingredients determined not to be hazardous		Balance

SECTION 4 FIRST AID MEASURES

FIRST AID

Ingestion: If swallowed do NOT induce vomiting; seek medical advice immediately and show this container or label or contact the Poisons Information Centre, phone Australia 13 11 26. Make every effort to prevent vomit from entering the lungs by careful placement of the patient. Give water to wash mouth and to drink.

Eye contact: if in eyes flush with running water until product is removed. Seek medical advice if irritation occurs and persists.

Skin contact: Remove contaminated clothing. Wash thoroughly under running water using a mild soap. Seek medical advice if irritation, reddening and/or other damage occurs. Launder contaminated clothing before re-use.

Inhalation: Remove affected person to fresh air until recovered. If symptoms develop or persist, seek medical advice.

Advice to Doctor: Treat symptomatically. No specific antidote is available. The active ingredient, imidacloprid, belongs to the chloronicotinyl or neonicotinoid chemical group. Local symptoms are not expected. Systemic symptoms may include apathy, depressed muscular tone, respiratory disturbances and trembling muscular cramps in severe cases of poisoning.

Treatment for systemic (nicotine-like) effects: Check pulse and blood pressure frequently, as bradycardia and hypotonia are possible. Provide supportive measures for respiratory function and cardiac action. Additional therapeutic measures involve accelerated elimination of the substance from the body (gastrolavage, saline laxatives).

Contraindications: Absorption agents such as alcohol and milk. Oils and fats are not particularly effective as imidacloprid has low liposolubility.

SECTION 5 FIRE FIGHTING MEASURES

Specific Hazard: Generally considered a low risk due to the water content, but once the water has evaporated the product is combustible.

Extinguishing media: Extinguish fire using media suited to burning material. If containers are ruptured contain all runoff.

Hazards from combustion products: Non-combustible, however after evaporation of water, the residual material can burn if ignited and when burning will emit toxic fumes. Will not polymerise.

Precautions for fire-fighters and special protective equipment: Isolate fire area. Evacuate downwind residents. Firefighters to wear self-contained breathing apparatus and suitable protective clothing if risk of exposure to vapour or smoke. Do not breathe smoke or vapours generated.

SECTION 6 ACCIDENTAL RELEASE MEASURES

Emergency procedures:
Accidental release: In the event of a major spill, prevent spillage from entering drains or water courses. For major spills, wear cotton overalls buttoned to the neck and wrist and a washable hat and elbow-length chemical resistant gloves. In the case of spillage, stop leak if safe to do so, and contain spill. Contain spill and sweep up and shovel or collect recoverable material into labelled containers for use, recycling or dispose as waste in compliance with relevant local, state or territory government regulations.

Material and methods for containment and cleanup procedures: To decontaminate spill area, tools and equipment, wash with detergent and water and add the solution to the drums of waste already collected and label contents. Keep out animals and unprotected persons.

After spills, wash area preventing runoff from entering drains. If a significant quantity of material enters drains, advise emergency services. Thoroughly launder protective clothing before storage or re-use.

SECTION 7 HANDLING AND STORAGE

Precautions for Safe Handling: Harmful if swallowed. Will irritate the eyes and skin. Repeated exposure may cause allergic disorders. Avoid contact with the eyes and skin. When opening the container, and using the product, wear elbow-length chemical resistant gloves. Wash hands after use. After each day's use wash gloves.

Conditions for Safe Storage: Store in the closed, original container in a well ventilated area away from children, animals, food, feedstuffs, seed and fertilisers. Do not store for prolonged periods in direct sunlight. This product is a Schedule 6 Poison (S6) and must be stored, transported and sold in accordance with the relevant Health Department regulations.

SECTION 8 EXPOSURE CONTROLS / PERSONAL PROTECTION

Exposure Guidelines:
No exposure limits have been assigned by Safe Work Australia to the ingredients in this product.

Biological Limit Values:
No biological limit allocated.

Engineering controls:
Keep containers closed when not in use. No special engineering controls are required, however make sure that the work environment remains clean and that vapours are minimised.

Personal Protective equipment (PPE):
General: When opening the container, and using the product, wear elbow-length chemical resistant gloves. Wash hands after use. After each day's use wash gloves.

Personal Hygiene: Harmful if swallowed. Will irritate the eyes and skin. Repeated exposure may cause allergic disorders. Avoid contact with the eyes and skin. Clean water should be available for washing in case of eye or skin contamination. Wash skin before eating, drinking or smoking. Shower at the end of the workday.

SECTION 9 PHYSICAL AND CHEMICAL PROPERTIES

Appearance:	Beige to off white coloured liquid suspension.
Odour:	No data available.
Boiling point:	No data available.
Freezing point:	No data available.
Specific Gravity:	Approximately 1.1.
Solubility in Water:	Suspends in water.
pH:	5 - 8.
Flammability:	Not flammable.
Corrosive hazard:	Not corrosive.
Flashpoint (°C):	Not flammable.
Poisons Schedule:	This product is a schedule 6 (S6) poison.
Formulation type:	Suspension Concentrate (SC).

SECTION 10 STABILITY AND REACTIVITY

Chemical Stability: Product is considered stable in ambient conditions for a period of at least 2 years after manufacture.

Conditions to avoid: Do not store for prolonged periods in direct sunlight.

Incompatible materials: Incompatible with strong oxidizing agents.

Hazardous decomposition products: Product is likely to decompose after heating to dryness and continued strong heating and will emit toxic fumes.

Hazardous reactions: Polymerisation will not occur.

SECTION 11 TOXICOLOGICAL INFORMATION

No specific data is available for this product as no toxicity tests have been conducted on this product. Information presented is our best judgement based on similar products and/or individual components. As with all products for which limited data is available, caution must be exercised through the use of protective equipment and handling procedures to minimise exposure.

Although no account of human poisoning was found in the literature, signs and symptoms of poisoning would be expected to be similar to nicotinic signs and symptoms, including fatigue, twitching, cramps, and muscle weakness including the muscles necessary for breathing.

Potential Health Effects:

ACUTE EFFECTS

Swallowed: Harmful if swallowed. Swallowing large quantities may cause vomiting, diarrhoea, abdominal pain, lethargy, depressed muscular tone, muscular cramps, respiratory disturbances and trembling. The estimated Acute Oral LD_{50} (rat) = 750 mg/kg.

Eye: Irritating to eyes. Avoid contact with eyes.

Skin: May be irritating to the skin. Estimated Acute Dermal LD_{50} (rat) > 4000 mg/kg (Imidacloprid). Repeated exposure may cause allergic disorders.

Inhaled: Inhalation of sprays or mists may result in effects described under 'Ingestion'. The estimated LC_{50} is greater than 1.86 mg/L/4 hours, (this was the highest concentration able to be produced).

Long Term Exposure:
Chronic toxicity:

Mutagenicity: Imidacloprid was not mutagenic or genotoxic based on the overall weight of evidence in a battery of in vitro and in vivo tests.
Carcinogenicity: Imidacloprid was not carcinogenic in lifetime feeding studies in rats and mice.
Reproduction: Imidacloprid caused reproduction toxicity in a two-generation study in rats only at dose levels also toxic to the parent animals. The reproduction toxicity seen with Imidacloprid is related to parental toxicity.
Developmental toxicity: Imidacloprid caused developmental toxicity only at dose levels toxic to the dams. The developmental effects seen with Imidacloprid are related to maternal toxicity.

The results of periodic examinations of employees exposed to imidacloprid showed no adverse health effects. No epidemiological studies of the effects of imidacloprid and no information on symptoms of poisoning or clinical signs were available. A 4-year-old child who ingested about 10 mg/kg body weight of a veterinary preparation of imidacloprid showed no signs of poisoning or adverse health effects.

SECTION 12 ECOLOGICAL INFORMATION

Environmental Toxicology: No information is available for the product. The following information refers to the active ingredient, imidacloprid. Toxic to upland game birds (Bobwhite quail LD_{50} 152 mg/kg). Toxic to fish and aquatic species - Rainbow trout LD_{50} = 211 mg/L and Golden orfe LD_{50} = 237 mg/L. Toxic to *Daphnia magna* LC_{50} (48 hour) = 85 mg/L. Toxic to bees when used as a spray, but when used as a seed treatment it has been shown to be safe to bees. DO NOT contaminate streams, rivers or water courses.

SECTION 12 ECOLOGICAL INFORMATION (Continued)

Environmental Fate: No information is available for the product. The following information refers to the active ingredient, imidacloprid. Imidacloprid has medium absorption to soil with a half-life of 48-190 days. The hydrolysis half-life of imidacloprid can range from 33 - 44 days at pH 7 and 25°C. The aqueous photolysis half-life is less than 3 hours. Imidacloprid has a photolysis half-life of 39 days at the soil surface, with a range of 26.5 - 229 days when incorporated into the soil. Persistence in soil allows for continual availability for uptake by plant roots. The combination of low Koc between 132 - 310 and high water solubility of 514 ppm suggests a potential to leach to ground water.

SECTION 13 DISPOSAL CONSIDERATIONS

Spills and Disposal: Persons involved in cleanup require adequate skin and eye protection - see Section 8. Keep material out of streams and sewers. Vacuum, shovel or pump waste into an approved drum. Dispose of drummed wastes, including decontamination solution in accordance with the requirements of Local or State Waste Management Authorities. In rural areas, if there is a need to dispose of the product, approach local authorities who hold periodic collections of unwanted chemicals (ChemClear®).

Disposal of empty containers: Triple-rinse containers before disposal. Add rinsings to spray tank. Do not dispose of undiluted chemicals on site. If recycling, replace cap and return clean containers to recycler or designated collection point. If not recycling, break, crush, or puncture and deliver empty packaging to an approved waste management facility. If an approved waste management facility is not available, bury the empty packaging 500 mm below the surface in a disposal pit specifically marked and set up for this purpose clear of waterways, desirable 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

Storage and Transport: This product is not classified as a Dangerous Good by the ADG.

Marine and Air Transport: This product is not classified as a Dangerous Good.

SECTION 15 REGULATORY INFORMATION

Under the Standard for Uniform Scheduling of Medicines and Poisons (SUSMP), this product is a Schedule 6 poison.
This product is registered under the Agricultural and Veterinary Chemicals Code Act 1994. Product Registration No. 68402.
This product is classified as a Hazardous Substance under the criteria of Safe Work Australia Xn: Harmful, Xi: Irritant.
This product is not classified as a Dangerous Good according to the ADG Code (7th Ed), the International Maritime Dangerous Goods (IMDG) Code and the International Air Transport Association (IATA).
Requirements concerning special training:
Check State or Territory regulations that require people who use pesticides in their job or business to have training in the application of the materials.

SECTION 16 OTHER INFORMATION

Issue Date: 30 March 2016. Valid for 5 years till 30 March 2021. (First issue).

Key to abbreviations and acronyms used in this SDS:

ADG Code:	Australian Dangerous Goods Code (for the transport of dangerous goods by Road and Rail).
Carcinogen:	An agent which is responsible for the formation of a cancer.
Genotoxic:	Capable of causing damage to genetic material, such as DNA.
HSIS:	Hazardous Substances Information System.
Lacrimation:	The production, secretion, and shedding of tears.
Lavage:	A general term referring to cleaning or rinsing.
Mutagen:	An agent capable of producing a mutation.

SECTION 16 OTHER INFORMATION (Continued)

Pneumonitis: A general term that refers to inflammation of lung tissue.
PPE: Personal protective equipment.
Teratogen: An agent capable of causing abnormalities in a developing foetus.
TWA: The Time Weighted Average airborne concentration over an eight-hour working day, for a five day working week over an entire working life.
Safe Work Australia: Formally known as Australian Safety & Compensation Council (ASCC) which was formally known as the National Occupational Health & Safety Commission (NOHSC).

References

1. "Search Hazardous Substances". HSIS. Safe Work Australia website. (2016).
2. "Approved Criteria for Classifying Hazardous Substances" 3rd Ed. NOHSC Australia. [NOHSC:1008 (2004)]. October 2004.
3. Globally Harmonized System of Classification and Labelling of Chemicals (GHS). United Nations, 2009.

This 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 should read this SDS and consider the information in the context of how the product will be handled and used in the workplace including in conjunction with other products.

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

End SDS