

MATERIAL SAFETY DATA SHEET

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Date of Issue: November 2012
MSDS No. FMC/IMIS600/1

SECTION 1 IDENTIFICATION OF THE MATERIAL AND SUPPLIER

Product Name: FMC Imidacloprid 600 Insecticide

Other Names: Imidacloprid. Group 4A Herbicide.
Use: Liquid seed dressing for the control of various insect pests.
Company: FMC Crop Protection Pty Ltd..
Address: Unit 26, 8 Metroplex Avenue, Murarrie, Qld 4172
Telephone Number: 07 3908 9222 **Fax Number:** 07 3908 9221
Emergency Telephone Number: 1800 033 111 (All hours - Australia wide).

SECTION 2 HAZARDS IDENTIFICATION

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

Risk phrases: R22 Harmful if swallowed.
R43 May cause sensitisation by skin contact.

Safety Phrases: S2 Keep out of reach of children.
S13 Keep away from food, drink and animal feeding stuffs.
S23 Do not breathe vapour or spray.
S24/25 Avoid contact with skin and eyes.
S36/37 Wear suitable protective clothing and gloves.
S46 If swallowed, seek medical advice immediately, and show this container or label.

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 (including water) considered non-hazardous		balance

SECTION 4 FIRST AID MEASURES

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.

The above first aid instructions are mandated by the Commonwealth Department of Health and Ageing via the National Drugs and Poisons Schedule. These instructions are suitable for ingestion of spray solution and small amounts of concentrate; however, if SUBSTANTIAL AMOUNTS of the concentrate have been swallowed (more than about 10 mL) AND if medical assistance is more than 30 minutes away, the induction of vomiting should be CONSIDERED, preferably based on MEDICAL ADVICE if a physician can be contacted by phone. All care must be taken to prevent vomit from being inhaled. Do not give anything by mouth to a semi-conscious or unconscious person.

Eye: If in eyes, hold eyelids open and wash with copious amounts of water for at least 15 minutes. Seek medical advice.

SECTION 4 FIRST AID MEASURES (Continued)

Skin: Remove contaminated clothing and launder before re-use. Wash affected areas thoroughly with soap and water.

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: CO₂, Foam or dry chemical. Soft stream water fog or fine water spray if no alternatives. Contain all runoff.

Hazards from combustion products: If involved in a fire, it can emit toxic fumes of cyanides, hydrogen chloride and carbon oxides. Firefighters to wear self-contained breathing apparatus and suitable protective clothing if risk to of exposure to vapour or smoke.

Precautions for fire-fighters and special protective equipment: Isolate fire area. Evacuate downwind. Wear full protective clothing and self-contained breathing apparatus. Do not breathe or contact smoke, gases or vapours generated.

SECTION 6 ACCIDENTAL RELEASE MEASURES

Emergency procedures: Isolate and post spill area. Wear cotton overalls buttoned to the neck and wrist and elbow-length PVC gloves. In the case of spillage, stop leak if safe to do so, and contain spill. Large spills should be dyked or covered to prevent dispersal. Vacuum, shovel or pump spilled material into an approved container and dispose of as listed below. Keep out unprotected persons and animals.

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 wastes already collected and label contents. Absorb, as above, any excess liquid and add both solutions to the drums of waste already collected. Dispose of drummed wastes, including decontamination solution in accordance with the requirements of Local or State Waste Management Authorities.

Do NOT allow spilled product or wash solution to enter sewers, drains, dams, creeks or any other waterways.

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 eyes and skin. When opening the container and using the product, wear elbow-length PVC gloves. Wash hands after use. After each day's use, wash gloves.

Conditions for Safe Storage: DO NOT store near (or allow to contact) fertilizers, fungicides or pesticides. Store in the closed original container, in a cool well ventilated area, out of direct sunlight. Store in a room or place away from children, animals, food, feed stuffs, seed and fertilizers.

SECTION 8 | EXPOSURE CONTROLS / PERSONAL PROTECTION**National Exposure Standards:**

No exposure guidelines have been established for this product by Safe Work Australia.

Biological Limit Values:

No biological limit allocated.

Engineering controls:

Use in well ventilated areas. Keep containers closed when not in use. No special engineering controls are required.

Personal Protective equipment (PPE):

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

Respiratory Protection: Generally not required. Do not inhale spray mist. Use of a respirator may be required in certain circumstances. If an inhalation risk exists, wear a properly fitted half-face or full-face air-purifying respirator which is approved for pesticides (Australian Standards).

Personal Hygiene: Clean water should be available for washing in case of eye or skin contamination. After use and before eating, drinking or smoking, wash hands, arms and face thoroughly with soap and water. After each days use wash gloves and contaminated clothing.

SECTION 9 | PHYSICAL AND CHEMICAL PROPERTIES

Appearance:	Beige to off white coloured liquid suspension.
Solubility in Water:	Suspends in water. Not soluble.
Specific Gravity:	1.1
pH Value:	Approximately 7 (1% suspension)
Vapour Pressure:	9 x 10 ⁻⁷ mPa @ 25°C (imidacloprid)
Octanol/Water	
Partition Coefficient:	Kow Log P is 0.57 @ 21°C (imidacloprid).
Flammability:	Not flammable.
Poison Schedule:	This product is a Schedule 6 (S6) Poison.

SECTION 10 | STABILITY AND REACTIVITY

Chemical Stability: Product stable for at least 2 years under normal conditions of use.

Conditions to avoid: Avoid heat sources.

Incompatible materials: Avoid strong oxidising agents.

Hazardous Decomposition Products: None under normal conditions. In a fire toxic and noxious gases may be released.

Hazardous Polymerization: Material is not known to polymerize.

Hazardous reactions: No special considerations. Hazardous polymerisation is not possible.

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. Irritating to the eyes and skin.

Ingestion: 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 LD₅₀ (rat) = 750 mg/kg.

Eye: May irritate the eyes.

Skin: May irritate the skin. Repeated or prolonged contact with the concentrate may lead to irritant contact dermatitis. The estimated LD₅₀ > 4000 mg/kg.

SECTION 11 TOXICOLOGICAL INFORMATION (Continued)

Inhalation: Inhalation of sprays or mists may result in effects described under 'Ingestion'. The estimated LC₅₀ is greater than 1.86 mg/L/4 hours, (this was the highest concentration able to be produced).

Chronic Effects: Based on available data, repeated exposures are not anticipated to cause additional significant adverse effects.

Long Term Exposure: In animal studies, imidacloprid has shown no evidence of oncogenic effects, no carcinogenic effect no teratogenic potential and is not mutagenic. Imidacloprid is quickly and almost completely absorbed from the gastrointestinal tract and eliminated in urine (70-80%) and faeces (20-30%).

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 LD₅₀ 152 mg/kg). Toxic to fish and aquatic species - rainbow trout LD₅₀ = 211 mg/L and golden orfe LD₅₀ = 237 mg/L. toxic to *Daphnia magna* LC₅₀ (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.

Environmental Properties: 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. It is not expected to leach.

SECTION 13 DISPOSAL CONSIDERATIONS

Spills & Disposal: Isolate and post spill area. Wear prescribed protective clothing and equipment. Large spills should be dyked and covered to prevent dispersal. Keep out animals and unprotected persons. Keep material out of streams and sewers. Vacuum, shovel or pump waste into an approved drum. To decontaminate spill area, tools and equipment, wash with detergent and water and add the solution to the drums of wastes already collected and label contents. Dispose of drummed wastes, including decontamination solution in accordance with the requirements of Local or State Waste Management Authorities.

Disposal of empty containers: Triple or preferably pressure 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 bury empty containers in a local authority landfill. 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 exempt from classification as a Dangerous Good in packs less than 3,000 kg or litres under the Australian Code for the Transport of Dangerous Goods by Road and Rail. For bulk shipments this product is a class 9, UN 3082. (See special provision AU01). For bulk shipments this product is a class 9, UN 3082.

Marine and Air Transport: This product is classified as a Marine Pollutant according to International Maritime Dangerous Goods (IMDG) Code and the International Air transport Association (IATA). If transporting by sea or air the following Dangerous Goods Classification applies:-
UN 3082, Class 9 (Miscellaneous Dangerous Goods), Packing Group III, Proper Shipping Name ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (Contains 60% Imidacloprid). Hazchem code ●3Z. Hazard Identification Number (HIN) 90. Emergency Guide 47 (Australian Standards).

SECTION 14 TRANSPORT INFORMATION (Continued)

This product is a Schedule 6 Poison (S6) and must be stored, transported and sold in accordance with the relevant Health Department regulations.

SECTION 15 REGULATORY INFORMATION

Classified as a hazardous substance according to criteria of the Safe Work Australia. (Xn - harmful). 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. 67927.

Product is not classified as a Dangerous Good according to the ADG Code (7th Ed) in packs less than 3000 kg. Considered a Dangerous Good for sea transport

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: 28 November 2012. Valid for 5 years. (First issue).

Key to abbreviations and acronyms used in this MSDS:

ADG Code: Australian Dangerous Goods Code (for the transport of Dangerous Goods by Road and Rail).

ASCC: Australian Safety & Compensation Council (formally known as the National Occupational Health & Safety Commission (NOHSC)).

Carcinogen: An agent which is responsible for the formation of a cancer.

Genotoxic: Capable of causing damage to genetic material, such as DNA.

Lacrimation: The production, secretion, and shedding of tears.

Lavage: A general term referring to cleaning or rinsing.

NOHSC: National Occupational Health and Safety Commission.

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". Safe Work Australia website. (2012).
2. "Approved Criteria for Classifying Hazardous Substances" 3rd Ed. NOHSC Australia. [NOHSC:1008 (2004)]. October 2004.
3. Standard for the Uniform Scheduling of Medicines and Poisons. No. 3. Medicines and Poisons Scheduling Secretariat. June 2012.

This MSDS 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 MSDS 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 of MSDS.