



SECTION 1: IDENTIFICATION

Product Name: Imidacloprid 0.2 Plus Fertilizer
EPA Registration No.: 53883-362
Recommended Use: Insecticide; See product label for a complete list of uses and use sites.
Restrictions on Use: See product label for any restrictions on the use of this product.
Chemical Family: Neonicotinoid
Chemical Name of Active Ingredient(s): Imidacloprid
Manufactured for: SynaTek, LP
 737 Hagey Center Dr. Unit A
 Souderton, PA 18964

FOR FIRE, SPILL, AND/OR LEAK EMERGENCIES CONTACT: CHEMTREC 1-800-424-9300

FOR MEDICAL EMERGENCIES AND HEALTH AND SAFETY INQUIRIES CONTACT: Safety Call 1-866-897-8050

SECTION 2: HAZARD(S) IDENTIFICATION

EMERGENCY OVERVIEW: Yellow, white, red and brown granules with extremely pungent odor. Causes eye irritation. May be harmful if inhaled.

OSHA HCS CLASSIFICATION (29 CFR 1910.1200)

Eye Damage/Irritation	Category 2A
Specific Target Organ Toxicity – Repeated Exposure	Category 1
Carcinogenicity	Category 1A

Signal Word: DANGER



Hazard Statement(s): Causes serious eye irritation.
 Causes damage to organs (lungs/respiratory system) through prolonged or repeated exposure.
 May cause cancer (inhalation).

Precautionary Statement(s):

Prevention: Wash hands thoroughly after handling.
 Wear protective gloves/protective clothing/eye protection/face protection.
 Obtain special instructions before use.
 Do not handle until all safety precautions have been read and understood.
 Do not breathe dust.
 Do not eat, drink or smoke when using this product.

Response: **IF IN EYES:** Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists: Get medical advice/attention.
IF EXPOSED OR CONCERNED: Get medical advice/attention.
 Get medical advice/attention if you feel unwell.

Storage: Store locked up.

Disposal: Dispose of contents/container in accordance with Federal, state and local regulations.

The following percentage of the mixture consists of components with unknown hazards regarding the acute toxicity:

- 100% Acute oral toxicity
- 100% Acute dermal toxicity
- 100% Acute inhalation toxicity
- 100% Eye irritation
- 100% Skin irritation
- 100% Skin sensitization

SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

Chemical Name	CAS Number	Weight %
Imidacloprid	138261-41-3	0.2%
N-methyl-2-pyrrolidinone	872-50-4	0.5 – 9.0%
Dolomite Limestone (contains)	16389-88-1	0 – 95.0%
Crystalline silica	14808-60-7	0 – 15.0%

*Ingredients not listed or listed with a weight % range are considered a trade secret and are withheld under 29 CFR 1910.1200(i).

SECTION 4: FIRST AID MEASURES

IF IN EYES:	Hold eye open and rinse slowly and gently with water for 15 to 20 minutes. Remove contact lenses, if present, after the first 5 minutes; then continue rinsing eye. Call a poison control center or doctor for treatment advice.
IF ON SKIN:	Take off contaminated clothing. Rinse skin immediately with plenty of water for 15 to 20 minutes. Call a poison control center or doctor for treatment advice.
IF INHALED:	Move person to fresh air. If person is not breathing, call 911 or an ambulance; then give artificial respiration, preferably mouth-to-mouth if possible. Call a poison control center or doctor for further treatment advice.
IF INGESTED:	Call a poison control center or doctor immediately for treatment advice. Have person sip a glass of water if able to swallow. Do not induce vomiting unless told to do so by a poison control center or doctor. Do not give anything by mouth to an unconscious person.

Most important symptoms/effects, acute and delayed: Eye and respiratory tract irritation. Damage to lungs.

Note to Physician: No specific antidote is available. Treat symptomatically.

SECTION 5: FIRE-FIGHTING MEASURES

Suitable Extinguishing Media:	Water spray, alcohol-resistant foam, dry chemical or carbon dioxide
Unsuitable Extinguishing Media:	Water jet.
Hazardous Combustion Products:	Thermal decomposition may produce toxic carbon and nitrogen oxides as well as hydrogen chloride and hydrogen cyanide.
Special Protective Equipment & Precautions:	Evacuate area and fight fire upwind from a safe distance to avoid hazardous vapors and decomposition products. Foam and/or dry chemical are preferred to minimize environmental contamination. If water is used, dike and collect water to prevent run-off. Wear self-

contained breathing apparatus and full fire-fighting turn-out gear (Bunker gear).

Unusual Fire & Explosion Hazards: None known

SECTION 6: ACCIDENTAL RELEASE MEASURES

- Personal Precautions:** See Section 8 for personal protection equipment.
- Environmental Precautions:** Keep spilled material and any rinsate from contaminating soil or from entering sewage and drainage systems and bodies of water.
- Methods for Containment:** Isolate the spill area. Keep unnecessary and unprotected personnel from entering. Absorb small spills with sand, vermiculite or other inert absorbent. Dike large spills using absorbent or impervious material such as clay or sand. Avoid combustible materials such as sawdust or cloth rags. Recover and contain as much free liquid as possible for reuse. Allow absorbed material to solidify and scrape up for disposal.
- Methods for Clean-up:** Place contaminated material in appropriate container for disposal. After removal, flush contaminated area thoroughly with soap and water. Pick up wash liquid with additional absorbent and place in a disposable container. Do not put spilled material back in the original container.
- Other Information:** None known

SECTION 7: HANDLING AND STORAGE

- Handling:** RECOMMENDATIONS ARE INTENDED FOR MANUFACTURING, PACKAGING AND COMMERCIAL BLENDING WORKERS. PESTICIDE APPLICATORS AND WORKERS must refer to the product label and Directions for Use attached to the product for Agricultural Use Requirements in accordance with the EPA Worker Protection Standard 40 CFR part 170. Handle and open container in a manner as to prevent spillage. Do not eat, drink or smoke while handling this product. Immediately wash off accidental splashes of the concentrate or spray mixture from skin, clothing and out of eyes.
- Storage:** **See pesticide label for full information on product storage.** Do not contaminate water, food or feed by storage of this product. Store away from sources of heat, out of direct sunlight and away from incompatible materials. Pesticides should be stored in secured areas away from children and animals.
- Storage Temperature (Min/Max):** Not determined but avoid extreme temperatures.
- Product Incompatibilities:** Hydrofluoric acid. Strong oxidizers.

SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

Users of a pesticide product must refer to the product label for personal protective equipment requirements.

Exposure Guidelines:

COMPONENT	OSHA PEL	ACGIH TLV	NIOSH REL
Crystalline silica	250 mppcf/%SiO ₂ +5 (STEL) 10 mg/m ₃ /%SiO ₂ +2 (STEL)	0.025 mg/m ₃ (TWA)	0.05 mg/m ₃ (TWA)

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Engineering Controls:	Provide general or local exhaust ventilation systems to maintain airborne concentrations below OSHA PELs or other specified exposure limits. Local exhaust ventilation is preferred.
Respiratory Protection:	In areas of poor ventilation, use a NIOSH approved respirator with cartridges/canisters approved for pesticides and silica.
Eye Protection:	Chemical goggles or safety glasses and full-face shield.
Protective Gloves:	Chemical-resistant gloves such as barrier laminate, butyl rubber, nitrile, neoprene rubber, polyvinyl chloride (PVC) or Viton.
Other Protective Clothing:	Long-sleeved shirt, long pants and shoes plus socks.
General Safety Measures:	Wash hands before eating, drinking, chewing gum, using tobacco, or using the toilet. Remove clothing immediately after handling this product. Wash outside of gloves before removing. Discard clothing and other absorbent materials that have been drenched or heavily contaminated with this product's concentrate. Do not reuse them. Follow manufacturer's instructions for cleaning and maintaining PPE. If no such instructions for washables, use detergent and hot water. Keep and wash PPE separately from other laundry.

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

Appearance:	Yellow, white, brown & red granules (solid)	Upper/Lower Flammability Limits:	Not determined
Odor:	Extremely pungent	Vapor Pressure:	Not determined
Odor Threshold:	Not determined	Vapor Density:	Not determined
pH (1% dispersion):	7.0 – 8.5	Relative Density:	0.977 g/cm ³
Melting /Freezing Point:	Not determined	Solubility:	Not determined
Boiling Point/Range:	Not determined	Partition Coefficient:	Not determined
Flash Point:	Not determined	Auto-ignition Temperature:	Not determined
Evaporation Rate:	Not determined	Decomposition Temperature:	Not determined
Flammability:	Not applicable	Viscosity:	Not applicable

SECTION 10: STABILITY AND REACTIVITY

Reactivity:	Dolomitic limestone dissolves in hydrofluoric acid, producing corrosive silicon tetrafluoride gas. Silicates react with powerful oxidizers such as fluorine, boron trifluoride, chlorine trifluoride, manganese trifluoride and oxygen trifluoride.
Chemical Stability:	Stable under normal storage and handling conditions.
Possibility of Hazardous Reactions:	No potential for hazardous reactions known unless mixed with incompatible substances.
Conditions to Avoid:	Avoid extreme temperatures
Incompatible Materials:	Hydrofluoric acid. Strong oxidizers.
Hazardous Decomposition Products:	Thermal decomposition may produce toxic carbon and nitrogen oxides as well as hydrogen chloride and hydrogen cyanide.

SECTION 11: TOXICOLOGICAL INFORMATION

Likely Routes of Exposure: Eye contact, Skin contact, Inhalation, Ingestion
Symptoms of Exposure: Eye and respiratory tract irritation. Damage to lungs.
Oral LD₅₀: Not determined
Dermal LD₅₀: Not determined
Inhalation LC₅₀: Not determined
Eye Irritation/Damage: Not determined
Skin Corrosion/Irritation: Not determined
Skin Sensitization: Not determined

Chronic/Subchronic Toxicity: Repeated overexposure to imidacloprid, may affect heart, thyroid, blood chemistry, and liver. Repeated overexposure to N-methyl-2-pyrrolidinone (NMP) may cause effects to eyes, skin, respiratory system, central nervous system, liver and kidneys. Crystalline silica is known to cause silicosis after repeated inhalation. There are three types of silicosis: 1) simple chronic silicosis – results from long-term exposure (more than 20 years) to low amounts of respirable crystalline silica; 2) Accelerated silicosis – occurs after exposure to larger amounts of respirable crystalline silica over a shorter period of time (5-15 years); 3) Acute silicosis – results from short-term exposure to very large amounts of respirable crystalline silica.

Mutagenicity: The imidacloprid mutagenicity studies, taken collectively, demonstrate that imidacloprid is not genotoxic or mutagenic. Neither in vitro nor in vivo tests on N-methyl-2-pyrrolidinone demonstrated mutagenic effects.

Reproductive Toxicity: In a two-generation reproduction study in rats, imidacloprid produced reduced mean body weight gains. No other reproductive effects were observed. N-methyl-2-pyrrolidinone may adversely affect reproduction in rats after ingestion, although fertility is unaltered.

Neurotoxicity: No data available

Target Organs: Repeated overexposure to imidacloprid, may affect heart, thyroid, blood chemistry, and liver. Repeated overexposure to N-methyl-2-pyrrolidinone (NMP) may cause effects to eyes, skin, respiratory system, central nervous system, liver and kidneys.

Aspiration Hazard: Not applicable.

Carcinogenicity: Imidacloprid did not cause cancer in laboratory animal studies. The U.S. EPA has given imidacloprid a Group E (evidence of non-carcinogenicity in humans). No increase in tumors was seen in rats via dietary or inhalation exposure to N-methyl-2-pyrrolidinone for two years; however, an increase in tumors was seen in rats receiving high dietary doses over a similar period. Liver tumors are not uncommon when non-genotoxic chemicals such as N-methyl-2-pyrrolidinone are tested in the mouse biosassy.

Chemical Name	ACGIH	IARC	NTP	OSHA
Crystalline silica		Group 1	Known	

SECTION 12: ECOLOGICAL INFORMATION

Environmental Hazards Statement from FIFRA Regulated Pesticide Label:

This product is highly toxic to aquatic invertebrates. DO NOT apply directly to water, or to areas where surface water is present or to intertidal areas below the mean high water mark. DO NOT contaminate water when disposing of equipment washwaters or rinsate. Runoff may be hazardous to aquatic organisms in water adjacent to treated areas.

This product contains a chemical with properties and characteristics associated with chemicals detected in groundwater. The use of this chemical in areas where soils are permeable, particularly where the water table is shallow, may result in groundwater contamination.

To prevent contamination of the environment, do not apply near water, storm drains, gutters or ditches. Do not apply when heavy rain or downpour is predicted for that day. Apply this product only to your lawn or garden, and sweep any product that lands on the driveway, sidewalk, or street, back onto the treated area of your lawn or garden.

ECOTOXICITY DATA:

Fish Toxicity:

The data presented below is on technical imidacloprid.

Bluegill (*Lepomis macrochirus*): 96 hr LC₅₀ = 105 mg/L

Rainbow trout: 96 hr LC₅₀ = 211 mg/L

Aquatic Invertebrate Toxicity:

Daphnia magna: 48 hr EC₅₀ = 85 mg/L

Aquatic Plant Toxicity:

No data available

Avian Toxicity:

Bobwhite Quail: 8-day dietary LC₅₀ = 1535 ppm

Bobwhite Quail: Oral LD₅₀ = 152 mg/kg

Mallard Duck: 8-day dietary LC₅₀ >4,797 ppm

Honeybee Toxicity:

Contact LD₅₀ = 0.078 µg/bee

ENVIRONMENTAL EFFECTS:

Persistence and Degradability:

Hydrolysis half-life of imidacloprid is greater than 30 days at pH 7 and 25°C. The aqueous photolysis half-life is less than 3 hours. The soil surface photolysis of imidacloprid has a half-life of 39 days, and in soil, the half-life ranged from 26 to 229 days.

Bioaccumulation:

No data available

Mobility:

No data available

Other Adverse Effects:

No data available

SECTION 13: DISPOSAL CONSIDERATIONS

Waste Disposal: Refer to the pesticide label for full information on disposal. Pesticide wastes are toxic. Improper disposal of unused pesticide, spray mixture, or rinse water is a violation of Federal law. If these wastes cannot be used according to label instructions, contact your State Pesticide or Environmental Control Agency or the Hazardous Waste representative at the nearest EPA Regional Office for guidance in proper disposal methods.

Container Disposal: Refer to the pesticide label for full information on disposal. When possible, triple rinse the container and offer for recycling if available.

RCRA Characteristics: It is the responsibility of the individual disposing of this product to determine the RCRA classification and hazard status of the waste.

SECTION 14: TRANSPORTATION INFORMATION

DOT (Ground): Not regulated

IMDG (Sea): Not determined

IATA (Air): Not determined

SECTION 15: REGULATORY INFORMATION

Labeling Requirements Under FIFRA: This chemical is a pesticide product registered by the Environmental Protection Agency and is subject to certain labeling requirements under federal pesticide law. These requirements differ from the classification criteria and hazard information required for safety data sheets and for workplace labels of non-pesticide chemicals. Following is the hazard information as required on the pesticide label:

CAUTION

Causes moderate eye irritation. Avoid contact with skin, eyes or clothing. Wash thoroughly with soap and water after handling and before eating, drinking, chewing gum or using tobacco. Remove contaminated clothing and wash before reuse.

TSCA Inventory: This product is exempt from TSCA inventory listing requirements as it is solely for FIFRA regulated use.

SARA Title III Information:

Section 302 – Extremely hazardous substances: None

Section 311/312 – Hazard Categories: Immediate (Acute), Delayed (Chronic)

Section 313 – This product contains a chemical or chemicals which are subject to the reporting requirements of the Act and Title 40 of the Code of Federal Regulations, Part 372:

Chemical Name	CAS Number	Weight %
N-Methyl-2-pyrrolidinone	872-50-4	0.5 – 9.0%

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CERCLA – This product contains the following chemicals which have a reportable quantity (RQ) under the Comprehensive Environmental Response, Compensation and Liability Act (CERCLA):

Chemical Name	CAS Number	RQ	Quantity of Finished Product
None listed			

CALIFORNIA PROPOSITION 65:

Chemical Name	CAS Number	Prop 65 Category(ies)
N-Methyl-2-pyrrolidinone	872-50-4	Developmental
Crystalline silica	14808-60-7	Cancer

U.S. STATE RIGHT-TO-KNOW REGULATIONS:

Chemical Name	New Jersey	Massachusetts	Pennsylvania
N-Methyl-2-pyrrolidinone	X	X	X
Crystalline silica	X	X	X

SECTION 16: OTHER INFORMATION

NFPA	Health Hazards 2	Flammability 1	Instability 0	Special Hazards – None
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