

## 1. CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

**Product Name:** SynaTek® Entourage® Insecticide Plus Fertilizer

**EPA Reg. No.:** 228-610-91636

**Product Type:** Insecticide Plus Fertilizer

**Company Name:** SynaTek, LP  
737 Hagey Center Drive – Unit A  
Souderton PA 18964  
1-888-408-5433

**Telephone Numbers:** For Chemical Emergency, Spill, Leak, Fire, Exposure, or Accident,  
Call CHEMTREC Day or Night: 1-800-424-9300  
For Medical Emergencies Only, Call 911 or Poison Control at 1-800-222-1222

This product is an EPA FIFRA registered pesticide. Some classifications on this SDS are not exactly the same as on the FIFRA label. Certain sections are superseded by federal law governed by EPA for a registered pesticide. Please see Section 15. REGULATORY INFORMATION for explanation.

## 2. HAZARDS IDENTIFICATION

### PHYSICAL HAZARDS:

None known.

### HEALTH HAZARDS:

Eye irritation	Category 2B
Specific target organ toxicity – Repeated Exposure	Category 2

### ENVIRONMENTAL HAZARDS:

Hazardous to aquatic environment, acute	Category 3
Hazardous to aquatic environment, chronic	Category 1

### SIGNAL WORD:

WARNING

### HAZARD STATEMENTS:

Causes eye irritation. May cause damage to heart, thyroid, liver, blood chemistry through prolonged or repeated exposure. Causes eye irritation.



### PRECAUTIONARY STATEMENTS

Wash hands and exposed skin after handling.

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.

Avoid releases to the environment (applies to this concentrated active ingredient).

Collect spillage.

Dispose of contents/container in accordance with State and Federal Regulations. See product label for disposal instructions.

### 3. COMPOSITION / INFORMATION ON INGREDIENTS

COMPONENTS	CAS NO.	% BY WEIGHT
Imidacloprid	138261-41-3	0.18 – 0.22
Lambda-Cyhalothrin	91465-08-6	0.036 – 0.044
N-methyl pyrrolidone	872-50-4	<1.0
Other Ingredients	Trade Secret	Trade Secret

**Synonyms:** Mixture of Imidacloprid and Lambda-Cyhalothrin on Fertilizer  
 Ingredients not precisely identified are proprietary or non-hazardous. Values are not product specifications.

### 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.  
**Most Important symptoms/effects, acute and delayed:** Eye irritation. Changes in blood chemistry; heart, thyroid, liver damage.  
**Indication of Immediate medical attention and special treatment if needed, if necessary:** Eye irritation.

### 5. FIRE FIGHTING MEASURES

**Flash Point:** Not applicable  
**Autoignition Temperature:** Not applicable  
**Flammability Limits:** Not applicable  
**Extinguishing Media:** Use extinguishing media suitable for surrounding materials. Dry chemical, carbon dioxide, foam, water spray or fog.  
**Special Fire Fighting Procedures:** Firefighters should wear NIOSH/MSHA approved self-contained breathing apparatus and full fire-fighting turn out gear. Dike area to prevent runoff and contamination of water sources. Dispose of fire control water later.  
**Unusual Fire and Explosion Hazards:** If water is used to fight fire, contain runoff, using dikes to prevent contamination of water supplies. Dispose of fire control water later  
**Hazardous Decomposition Materials (Under Fire Conditions):** May produce hydrogen chloride, hydrogen fluoride, hydrogen sulfide, ammonia, and oxides of carbon, nitrogen, phosphorus and sulfur.

### 6. ACCIDENTAL RELEASE MEASURES

**Personal Precautions:** Wear appropriate protective gear for the situation. See Personal Protection information in Section 8.  
**Environmental Precautions:** Prevent material from entering public sewer systems or any waterways. Do not flush to drain. Large spills to soil or similar surfaces may necessitate removal of topsoil. The affected area should be removed and placed in an appropriate container for disposal.  
**Methods for Containment:** Dike spill using absorbent or impervious materials such as earth, sand or clay. Collect and contain contaminated absorbent and dike material for disposal.  
**Methods for Cleanup and Disposal:** Avoid creation of dusty conditions. If dry, sweep or scoop up material and place into container for disposal. If wet, pump any free liquid into an appropriate closed container. Decontaminate tools and equipment following cleanup. See Section 13: DISPOSAL CONSIDERATIONS for more information.  
**Other Information:** Large spills may be reportable to the National Response Center (80-424-8802) and to state and/or local agencies.

## 7. HANDLING AND STORAGE

**HANDLING:** Causes moderate eye irritation. Avoid contact with eyes or clothing. Users should wash hands before eating, drinking, chewing gum, using tobacco or using the toilet. Remove clothing immediately if pesticide gets inside. Then wash thoroughly and put on clean clothing. Remove Personal Protective Equipment (PPE) immediately after handling this product. Wash the outside of gloves before removing. As soon as possible, wash thoroughly and change into clean clothing. Keep children and pets off treated area until dry.

**STORAGE:** Store in original container. Keep area inaccessible to children and pets. Do not contaminate water, food, or feed by storage or disposal.

## 8. EXPOSURE CONTROLS / PERSONAL PROTECTION

**Engineering Controls:** These engineering controls are indicated by specific use conditions or a potential for excessive exposure, use local exhaust ventilation at the point of generation.

**Eye/Face Protection:** To avoid contact with eyes wear chemical goggles or shielded safety glasses. An emergency eyewash or water supply should be readily accessible to the work area.

**Skin Protection:** To avoid contact with skin wear long pants, long-sleeved shirt, socks, shoes and chemical-resistant gloves. An emergency shower or water supply should be readily accessible to the work area. **Respiratory Protection:** Not normally required. If vapors or mists exceed acceptable levels, wear NIOSH approved air-purifying respirator with cartridges/canisters approved for use against pesticides.

**General Hygiene Considerations:** Personal hygiene is an important work practice exposure control measure and the following general measures should be taken when working with or handling this material: 1) do not store, use and/or consume foods, beverages, tobacco products, or cosmetics in areas where this material is stored; 2) wash hands and face carefully before eating, drinking, using tobacco, applying cosmetics or using the toilet.

### Exposure Guidelines:

Component	OSHA		ACGIH		Unit
	TWA	STEL	TWA	STEL	
Imidacloprid	NE	NE	NE	NE	
Lambda-Cyhalothrin	NE	NE	NE	NE	
N-methyl pyrrolidone*	NE	NE	NE	NE	

NE = Not Established \* California OSHA PEL: 1 ppm, AIHA WEEL: 10 ppm

## 9. PHYSICAL AND CHEMICAL PROPERTIES

<b>Appearance:</b>	Multi-colored to solid colored granular mixture
<b>Odor:</b>	Slight odor
<b>Odor threshold:</b>	No data available
<b>pH:</b>	No data available
<b>Melting point/freezing point:</b>	No data available
<b>Initial boiling point and boiling range</b>	No data available
<b>Flash point:</b>	No data available
<b>Evaporation rate:</b>	No data available
<b>Flammability (solid, gas):</b>	No data available
<b>Upper/lower flammability or explosive limits:</b>	No data available
<b>Vapor pressure:</b>	No data available
<b>density:</b>	No data available
<b>Relative density:</b>	0.772 g/ml (pour) 0.843 (tap)
<b>Solubility(ies):</b>	Partially soluble
<b>Partition coefficient: n-octanol/water:</b>	No data available
<b>Autoignition temperature:</b>	No data available
<b>Decomposition temperature:</b>	No data available
<b>Viscosity:</b>	No data available

**Note:** Physical data are typical values, but may vary from sample to sample. A typical value should not be construed as a guaranteed analysis or as a specification.

**10. STABILITY AND REACTIVITY**

**Reactivity:** Stable under normal use conditions.

**Chemical Stability:** This material is stable under normal handling and storage conditions.

**Possibility of Hazardous Reactions:** Hazardous polymerization will not occur

**Conditions to Avoid:** Excessive heat. Do not store near heat or flame

**Incompatible Materials:** Strong oxidizing agents: bases and acids.

**Hazardous Decomposition Products:** Under fire conditions may produce hydrogen chloride, hydrogen sulfide, ammonia, and oxides of carbon, nitrogen, phosphorus and sulfur.

**11. TOXICOLOGICAL INFORMATION**

**Likely Routes of Exposure:** Inhalation, skin and eye contact.

**Symptoms of Exposure:** Moderately irritating to the eye based on toxicity studies. Dusts may cause irritation. Slightly toxic and minimally irritating to the skin based on toxicity studies. Slightly toxic if ingested based on toxicity studies. Low inhalation toxicity.

**Delayed, immediate and chronic effects of exposure:** None expected.

**Toxicological Data:**

Data from laboratory studies conducted on this product are summarized below:

**Oral:** Rat LD<sub>50</sub>: > 5,00 mg/kg (female)

**Dermal:** Rat LD<sub>50</sub>: >5,00 mg/kg

**Inhalation:** Rat 4-hr LC<sub>50</sub>: >2.04 mg/l

**Eye Irritation:** Rabbit: Mildly irritating

**Skin Irritation:** Rabbit: Slightly irritating

**Skin Sensitization:** Not a contact sensitizer in guinea pigs following repeated skin exposure.

**Subchronic (Target Organ) Effects:** Repeated overexposure to imidacloprid, may affect heart, thyroid, blood chemistry, and liver. For Lambda-Cyhalothrin, contact with exposed skin may result in temporary itching, tingling, burning or numbness, called paresthesia. The symptoms normally disappear within 24 hours. Face and genital areas are especially susceptible to this effect. Paresthesia involving the face is also known as "subjective facial sensation" or SFS. Repeated overexposure to Lambda-Cyhalothrin may affect the liver and central nervous system.

**Carcinogenicity / Chronic Health Effects:** Prolonged overexposure to imidacloprid can cause effects to the thyroid. Imidacloprid did not cause cancer in laboratory animal studies. The U.S. EPA has given imidacloprid a Group E classification (evidence of non-carcinogenicity in humans). Prolonged overexposure to Lambda-Cyhalothrin may affect the liver. For Lambda-Cyhalothrin, no treatment-related tumors in rats or mice.

**Reproductive Toxicity:** In a two-generation reproduction study in rats, imidacloprid produced reduced mean body weights and body weight gains. No other reproductive effects were observed. In studies with animals, Lambda-Cyhalothrin was not a reproductive toxicant.

**Developmental Toxicity:** Rat and rabbit studies on imidacloprid resulted in skeletal abnormalities, increased resorptions (rabbits) and reduced body weight gains at doses that were also toxic to mother animals. In studies with animals, Lambda-Cyhalothrin was not a development toxicant.

**Genotoxicity:** The imidacloprid mutagenicity studies, taken collectively, demonstrate that imidacloprid is not genotoxic or mutagenic. Animal tests with Lambda-Cyhalothrin did not demonstrate mutagenic effects.

**Assessment Carcinogenicity:** None listed with ACGIH, IARC, NTP or OSHA.

## 12. ECOLOGICAL INFORMATION

### Environmental Hazards:

This product is toxic to aquatic invertebrates.

### Ecotoxicity:

Data on Imidacloprid Technical:

96-hour LC <sub>50</sub> Rainbow Trout:	211 mg/l	Japanese Quail Oral LD <sub>50</sub> :	31 mg/kg
48-hour EC <sub>50</sub> Daphnia:	85 mg/l	Bobwhite Quail Oral LD <sub>50</sub> :	152 mg/kg
96-hour LC <sub>50</sub> Mysid:	0.038 ppm	House Sparrow Oral LD <sub>50</sub> :	41 mg/kg
48-hour Honey Bee Contact LD <sub>50</sub> :	0.078 µg/bee	48-hour Honey Bee Oral LD <sub>50</sub> :	0.039 µg/bee

Data on Lambda-Cyhalothrin Technical:

Data on Lambda-Cyhalothrin Technical:

96-hour LC <sub>50</sub> Bluegill:	0.0021 ppm	Bobwhite Quail 8-day Dietary LC <sub>50</sub> :	>5,30 ppm
96-hour LC <sub>50</sub> Rainbow Trout:	0.0024 ppm	Mallard Duck 8-day Dietary LC <sub>50</sub> :	>3,948 ppm
48-hour EC <sub>50</sub> Daphnia:	0.0036 ppm	Mallard Duck LC <sub>50</sub> :	3,950 mg/kg
Honey Bee Oral LD <sub>50</sub> :	0.038 µg/bee		

### Environmental Fate:

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. Lambda-Cyhalothrin is moderately persistent in the soil. The reported half-lives range from 4 to 12 weeks. It shows a high affinity for soil with a reported Koc of 180,00. Lambda-Cyhalothrin has extremely low water solubility and is tightly bound to soil.

## 13. DISPOSAL CONSIDERATIONS

### Waste Disposal Method:

Pesticide wastes may be hazardous. Improper disposal of excess pesticide is a violation of Federal Law. Wastes resulting from the use of this product must be disposed of on site or at an approved waste disposal facility.

### Container Handling and Disposal:

Nonrefillable container. Do not reuse or refill this container. Completely empty bag into application equipment, then offer for recycling if available, or dispose of empty bag in a sanitary landfill or by incineration or, if allowed by state and local authorities, by burning. If burned, stay out of smoke.

## 14. TRANSPORTATION INFORMATION

Follow the precautions indicated in Section 7: HANDLING AND STORAGE of this SDS.

<b>USDOT:</b>	<882 pounds per completed package: UN 3349, Pyrethroid pesticide, solid, toxic, 6.1, III, (lambda cyhalothrin)
	≥882 pounds per completed package: UN 3349, Pyrethroid pesticide, solid, toxic, 6.1, III, (lambda cyhalothrin), Marine Pollutant
<b>IMDG:</b>	UN 3349, Pyrethroid pesticide, solid, toxic, 6.1, III, (lambda cyhalothrin), Marine Pollutant
<b>IATA:</b>	UN 3349, Pyrethroid pesticide, solid, toxic, 6.1, III, (lambda cyhalothrin), Marine Pollutant



# Plus Fertilizer

## 15. REGULATORY INFORMATION

### EPA FIFRA INFORMATION

This chemical is a pesticide product registered by the United States 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 (SDS), and for workplace labels of non-pesticide chemicals. The hazard information required on the pesticide label is reproduced below. The pesticide label also includes other important information, including directions for use.

**CAUTION:** Causes moderate eye irritation. Avoid contact with eyes or clothing. Wear long sleeved shirt, long pants, shoes and socks.

### U.S. FEDERAL REGULATIONS

**TSCA Inventory:** This product is exempted from TSCA because it is solely for FIFRA regulated use.

#### SARA Hazard Notification/Reporting:

##### Hazard Categories Under Criteria of SARA Title III Rules (40 CFR Part 370):

Immediate

##### Section 313 Toxic Chemical(s):

None

##### Reportable Quantity (RQ) under U.S. CERCLA:

None

##### RCRA Waste Code:

Under RCRA, it is the responsibility of the product user to determine at the time of disposal, whether a material containing the product or derived from the product should be classified as a hazardous waste.

##### State Information:

Other state regulations may apply. Check individual state requirements.

**California Proposition 65:** WARNING. This product contains chemicals known to the State of California to cause birth defects or other reproductive harm.

## 16. OTHER INFORMATION

### National Fire Protection Association (NFPA) Hazard Rating:

**Rating for this product: Health: 2 Flammability: 1 Reactivity: 0**

Hazards Scale: 0 = Minimal 1 = Slight 2 = Moderate 3 = Serious 4 = Severe

This Safety Data Sheet (SDS) serves different purposes than and DOES NOT REPLACE OR MODIFY THE EPA- ACCEPTED PRODUCT LABELING (attached to and accompanying the product container). This SDS provides important health, safety and environmental information for employers, employees, emergency responders and others handling large quantities of the product in activities generally other than product use, while the labeling provides that information specifically for product use in the ordinary course.

Use, storage and disposal of pesticide products are regulated by the EPA under the authority of the Federal Insecticide, Fungicide, and Rodenticide Act (FIFRA) through the product labeling, and all necessary and appropriate precautionary, use, storage, and disposal information is set forth on that labeling. It is a violation of Federal law to use a pesticide product in any manner not prescribed on the EPA-accepted label.

Although the information and recommendations set forth herein (hereinafter "Information") are presented in good faith and believed to be correct as of the date hereof, SynaTek, LP makes no representations as to the completeness or accuracy thereof. 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. In no event will SynaTek, LP be responsible for damages of any nature whatsoever resulting from the use of or reliance upon Information. NO REPRESENTATIONS OR WARRANTIES, EITHER EXPRESS OR IMPLIED, OF MERCHANTABILITY, FITNESS FOR A PARTICULAR PURPOSE OR OF ANY OTHER NATURE ARE MADE HEREUNDER WITH RESPECT TO INFORMATION OR THE PRODUCT TO WHICH INFORMATION REFERS AND ALL SUCH WARRANTIES ARE HEREBY SPECIFICALLY DISCLAIMED.

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**Supersedes:** None