MATERIAL SAFETY DATA SHEET

6022

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Rev.: B

SECTION 1 NAME & HAZARD SUMMARY

Material name: DEMAND™ PESTAB™ INSECTICIDE

Hazard summary (as defined by OSHA Hazard Comm. Std., 29 CFR 1910.1200): Physical hazards:

None.

Health hazards:

Irritant (eye, skin, respiratory passages, skin sensitizer).

Read the entire MSDS for a more thorough evaluation of the hazards.

SECTION 2 INGREDIENTS	%	ACGIH TLV
*** Lambda-cyhalothrin (PP321 Technical) (CAS 91465-08-6)	10.0	Not listed
Other ingredients	90.0	

Ingredients not precisely identified are proprietary or nonhazardous. Values are not product specifications.

SECTION 3 PHYSICAL DATA

Appearance and odor: Solid light beige colored tablet

Melting point: No data

Vapor pressure (mm Hg at 20°C): Not applicable

Vapor density (air = 1): Not applicable

Solubility in water: Tablet is disolvable in water pH: ~ 5.9 for a 1% w/w dilution in deionized water

Specific gravity: Not applicable (Tablet does have a bulk density of

0.55 gl cm)

% Volatile by volume: Not applicable

SECTION 4 FIRE AND EXPLOSION HAZARD DATA

Flash point: Not applicable

Autoignition temperature: No data Flammable limits (STP): Not applicable

Extinguishing media:

Water fog, foam, carbon dioxide, dry chemical, halogenated agents.

Special fire fighting protective equipment:

Self-contained breathing apparatus with full facepiece and protective clothing.

Unusual fire and explosion hazards:

Possible toxic smoke, vapors, fallout and runoff water can result from fires depending on extent of combustion and presence of other combustible materials. Contaminated buildings, areas, and equipment must be properly decontaminated before reuse.

SECTION 5 REACTIVITY DATA

Stability:

Stable under normal conditions.

Incompatibility:

Oxidizing agents, alkalies, calcium hypochlorite.

Hazardous decomposition products:

Combustion products: Carbon dioxide, carbon monoxide. Nitrogen oxides, ammonia, cyanuric acid, biuret. Halogen, halogen acids, possible trace amounts of carbonyl halide.

Hazardous polymerization:

Will not occur.

SECTION 6 HEALTH HAZARD ASSESSMENT

General:

Toxicity data are available on this specific product; this health hazard assessment is based on the results of screening tests.

Ingestion:

The acute oral toxicity in rat is greater than 300 mg/kg. This material is classified as "moderately toxic" by ingestion.

Eye contact:

A 2% v/v spray strength dilution was tested using three rabbits. No corneal or iridial effects. Slight irritation may occur following exposure to this material.

Skin contact:

This material is mildly irritating in rabbit dermal irritation studies. Short contact periods with human skin will probably not produce irritation. Irritation can develop following repeated and/or prolonged contact with human skin. This material was a skin sensitizer in animal testing. Skin sensitization and irritation may develop after repeated and/or prolonged contact with human skin.

Exposure to Lambdacyhalothrin may cause a skin sensation called paresthesia, which is usually described as tingling, itching, burning, prickling, glowing, flushing, numbness or a chapped feeling. Symptoms usually occur around the mouth and eyes but may involve the arms or hands. Symptoms may develop shortly after exposure or can be delayed up to four hours and can persist between 2 and 30 hours following contact. There is no evidence of any long-term or cumulative effects on the skin. The effect may result from transferring the material to the face from contaminated gloves and hands.

Skin absorption:

The acute dermal toxicity is >2000 mg/kg for this material. Systemically toxic concentrations of this product will not be absorbed through human skin.

Inhalation:

The inhalation toxicity in rat is >2.20 mg/l. Particulates of this material will probably irritate respiratory passages.

Other effects of overexposure:

Studies using laboratory animals exposed to high levels of the active ingredient lamdacyhalothrin have shown that lambdacyhalothrin may induce neurotoxic effects such as staggering gait, muscle tremors and convulsions.

Prolonged exposure to high atmospheric concentrations of respirable dust of amorphous silica may cause non-progressive fibrosis of the lungs. Persons with skin, eye, respiratory or kidney disorders may be at increased risk from exposure to a component of this material.

First aid procedures:

<u>Skin</u>: Wash material off of the skin with plenty of soap and water. If redness, itching, or a burning sensation develops, get medical attention. <u>Eyes</u>: Immediately flush with plenty of water for at least 15 minutes. If redness, itching, or a burning sensation develops, have eyes examined and treated by medical personnel.

<u>Ingestion</u>: Give 1 or 2 glasses of water to drink and refer victim to medical personnel. (Never give anything by mouth to an unconscious person). If victim is alert and not convulsing, rinse mouth out and give 200-300 ml (1 cup) of water to dilute material. Immediately contact ZENECA's Emergency Information Network at 1-800-F-A-S-T-M-E-D (327-8633). Vomiting should only be induced under the direction of a physician or a poison control center. If spontaneous vomiting occurs, have victim lean forward with head down to avoid breathing in of vomitus, rinse mouth and administer more water. Immediately transport victim to an emergency facility.

<u>Inhalation</u>: Remove victim to fresh air. If not breathing, give artificial respiration, preferably mouth-to-mouth. If breathing is labored, give oxygen. Consult medical personnel.

Note to physician: The active ingredient in this compound, if allowed to penetrate the skin may stimulate the nerve fibers in the skin, causing an irritation similar to that of a sunburn. The active ingredient will be drawn readily into a non-polar environment such as a fat based oil or cream. Water is highly polar and after a prolonged period of time will not decrease and may prolong the irritation. Treat discomfort due to irritation symptomatically.

Lavage is indicated for the unresponsive patient who has ingested a large dose. Hydrocarbon pneumonitis is a risk if this product is aspirated.

SECTION 7 SPILL OR LEAK PROCEDURES

Steps to be taken in case material is released or spilled:

This material is harmful to aquatic organisms. Releases to natural waters should be reported to appropriate water pollution control authorities. Releases of untreated effluent to the sewer should be immediately reported to the public treatment works.

Make sure all personnel involved in the spill cleanup follow good industrial hygiene practices. A small spill can be handled routinely. Use adequate ventilation to prevent inhalation. Wear suitable protective clothing and eye protection to prevent skin and eye contact. Use the following procedures:

- A. Raw pre-tabletted powder material during manufacturing process is released or spilled.
- B. Raw pre-tabletted powder material during transportation is released or spilled.
- 1. Do not allow material to enter streams, sewers or other waterways.
- Sweep up or vacuum spilled material being careful not to create dust, and shovel into an open drum.
- 3. Generously cover the contaminated areas with common, household detergent (e.g. TIDE, registered trademark Proctor & Gamble Company). Using a stiff brush and small amounts of water, work the detergent into the remaining spilled material forming a slurry. Brush the slurry into cracks and crevices and allow to stand for 2-3 minutes. Be careful to completely avoid skin or eye contact. Do not splatter on oneself or bystanders.
- 4. Spread absorbent on the slurry liquid and shovel mixture into the open drum.
- 5. Repeat #3 and 4 if necessary.
- 6. Rinse with a small amount of water and use absorbent to collect the wash solution. Shovel into the open drum.
- 7. Seal drum and dispose of contaminated material in a facility permitted for hazardous waste. Large spills should be handled according to a spill plan. Otherwise, in case of emergency call, day or night, 800-424-9300, Chemtrec.

For accidental releases or spills of Demand Pestab end-use water dilutions, follow procedures described above except for Step 2.

Disposal method:

This material is toxic to fish. Do not contaminate waterways by cleaning of equipment or by disposal of wastes. Untreated effluent should not be discharged where it will drain into lakes, streams, or ponds. Discarded product is not a hazardous waste under RCRA, 40 CFR 261.

Container disposal:

Pre-tabletted Material:

Empty container retains product residue. Observe all hazard precautions. Do not distribute, make available, furnish or reuse empty container except for storage and shipment of original product. Remove all product residue from container and puncture or otherwise destroy empty container before disposal.

Demand Pestab/Tablet: After removing tablet from packaging, dispose of in trash or by incineration (according to local regulations).

***SECTION 8 SPECIAL PROTECTION INFORMATION

TLV® or suggested control value:

No ACGIH TLV or OSHA PEL is assigned to this mixture. Control of exposure to below the PEL for the ingredients (see Section 2) may not be sufficient. Minimize exposure in accordance with good hygiene practice. The manufacturer of the solvent recommends an exposure limit of 50 ppm as an 8-hr TWA.

Zeneca operates its facilities such that employee exposure to lambdacyhalothrin is kept below $0.04~\text{mg/m}^3$ as an 8-hour TWA, with a skin notation

Ventilation:

Manufacturing: Provide general and/or local exhaust ventilation to control airborne levels below the exposure guidelines.

End-Use: Generally not required when treatment dilution is used but

local exhaust or ventilation may be used if necessary.

Respiratory protection:

Not normally needed for this product when tablet is diluted in water for end-use application. When needed, use MSHA/NIOSH approved respirator for pesticides.

Protective clothing:

This product is FIFRA regulated. Refer to product labeling for required end-user personal protection equipment. Skin contact should be prevented through the use of impervious gloves, long-sleeved shirts and long pants. Remove contaminated clothing and wash before rewearing. Wash separately from other laundry.

Eye protection:

Eye contact with the material should be avoided through the use of chemical safety glasses, goggles or a faceshield, selected in regard to exposure potential.

Other protective equipment:

An adequate supply of clean potable water should be available to allow thorough flushing of skin and eyes in event of contact with this compound.

SECTION 9 SPECIAL PRECAUTIONS OR OTHER COMMENTS

Special precautions or other comments:

Prevent skin and eye contact. Observe OSHA PEL limitations. Avoid breathing particulates. A sensitized individual should not be exposed to the product which caused the sensitization. Do not store near feed, food, or within the reach of children. Containers should be stored in a cool, dry, well-ventilated area away from flammable materials and sources of heat or flame. Exercise due caution to prevent damage to or leakage from the container. Workers must follow good hygiene practices to avoid accidental ingestion.

SECTION 10 REGULATORY INFORMATION

TSCA (Toxic Substances Control Act) Regulations, 40CFR 710:
This product is a pesticide and is exempt from TSCA regulation.

CERCLA and SARA Regulations (40 CFR 355, 370, and 372):

This product does not contain any chemicals subject to the reporting requirements of SARA Section 313.

Other Determined Regulations:

EPA Reg. No.: 10182-387

Other Information:

We assigned NFPA and HMIS ratings to this product based on the hazards of its ingredient(s). Because the customer is most aware of the application of the product, he must ensure that the proper personal protective equipment (PPE) is provided consistent with information contained in the product MSDS.*

NFPA	HMIS

1 Health 2 Health

0 Flammability 0 Flammability 0 Reactivity Special Hazards PPE¹

*This information is intended solely for the use of individuals trained in the particular hazard rating system.

The information herein is given in good faith but no warranty, expressed or implied, is made.

*** This line or section contains revisions or new statements since the last issue date.

¹See appropriate MSDS section.