MATERIAL SAFETY DATA SHEET

DEMON EC

MSDS No. US004662_01
Version: 2 Date issued: 01/30/98 Date printed: 02/09/98

Section 1 – CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

Company : Zeneca Agricultural Products

1800 Concord Pike Wilmington DE 19850

Phone number : (302) 886-1000

Emergency phone : Medical: 800-327-8633 (1-800 FASTMED)

Chemtrec: 800-424-9300 Technical:302-886-3000

Name used on label : DEMON EC Product use : Insecticide

A Registered Trade Mark of a Zeneca Group Company.

Section 2 – COMPOSITION/INFORMATION ON INGREDIENTS

Identity CAS-no. Typical % Other information

CYPERMETHRIN TECHNICAL

52315-07-8 25.3 %

Petroleum Solvent

7.4 % Petroleum Solvent containing:
1,2,4 - Trimethylbenzene (CAS 95-63-6)

Other Ingredients:

67.3 %

Ingredients not precisely identified are proprietary or non hazardous. Values are not product specifications.

Section 3 – HAZARDS IDENTIFICATION

Physical hazards:

Combustible liquid

Health hazards:

irritant (eye, skin sensitization), Harmful (oral) Toxic (inhalation)

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Section 4 – FIRST AID MEASURES

IF IN EYES:

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.

IF ON SKIN:

Wash material off the skin with plenty of soap and water. If redness, itching or a burning sensation develops, get medical attention.

IF SWALLOWED:

Provided the patient is conscious, give 1 or 2 glasses of water to drink. 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 water.

IF INHALED:

Remove victim to fresh air. Apply artificial respiration if breathing has ceased or shows signs of failing. Obtain medical attention.

Section 5 – FIRE FIGHTING MEASURES

Flash point :

160 °F

Autoignition temperature :

No data

Flammable limits (STP): :

No data

EXTINGUISHING MEDIA:

Water fog, alcohol foam, carbon dioxide, dry chemical, halogenated agents. PROTECTIVE EQUIPMENT:

Self-contained breathing apparatus with full facepiece and protective clothing

Unusual fire and explosion hazards:

Combustible liquid by OSHA 29 CFR 1910.1200. If heated above the flash point, heavy vapors can flow along surfaces to distant ignition sources and flash back. 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.

Special precautions or other comments:

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Follow procedures specified in the National Fire Protection Association codes and standards for handling combustible liquids. Prevent skin and eye contact. Avoid breathing vapors or aerosols. Workers should shower and change to fresh clothing after each shift. A sensitized individual should not be exposed to the product which caused the sensitization. Not for use in or around the home. Do not store near feed, food, or within the reach of children. Containers should be stored in a cool, dry, well-ventillated 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 6 – ACCIDENTAL RELEASE MEASURES

PERSONAL PRECAUTIONS:

Make sure all personnel involved in the spill cleanup follow good industrial hygiene practices. A small spill can be handled routinely. Ensure suitable personal protection (including respiratory protection) during removal of spillages. Wear suitable protective clothing and eye protection to prevent skin and eye contact.

ENVIRONMENTAL PRECAUTIONS:

Washings must be prevented from entering surface water drains. ADDITIONAL INFORMATION:

- 1. Spread a suitable absorbent such as clay on the spill, and shovel into an open drum.
- 2. Generously cover the contaminated areas with common, household detergent (e.g. TIDE, registered trademark of Proctor & Gamble Co.). 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.
- 3. Spread absorbent on the slurry liquid and shovel mixture into the open drum.
- 4. Repeat #2 and 3 if necessary.
- 5. Rinse with a small amount of water and use absorbent to collect the wash solution. Shovel into the drum.
- 6. 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.

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Section 7 – HANDLING AND STORAGE

SAFE HANDLING ADVICE:

Do not get on skin or clothing. Avoid contact with eyes. Avoid breathing vapors or spray mist. Wash thoroughly with soap and water after handling and before eating, drinking, or using tobacco. Remove contaminated clothing and wash before reuse.

REQUIREMENTS FOR STORAGE ROOMS:

Keep in original containers, tightly closed, out of reach of children. Keep away from food, drink and animal feeding stuffs. 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.

Section 8 - EXPOSURE CONTROLS / PERSONAL PROTECTION

Occupational exposure limits

OSHA PEL 1,2,4-trimethylbenzene

TWA 25 ppm

ACGIH TLV 1,2,4-trimethylbenzene

TWA 25 ppm

ACGIH TLV Extracts (petroleum), light paraffinic distillate solvent

8-hour TWA 5 mg/m³

ZENECA Standard on: CYPERMETHRIN TECHNICAL

8 hr TWA 0.5 mg/m^3

EYE PROTECTION:

MANUFACTURING: Chemical tight goggles; full faceshield in addition if splashing is possible.

END-USER: When making applications of diluted material in non-ventilated spaces or when rodding or subslab injecting, wear protective eyewear (goggles and/or safety glasses with side shields and/or face shield).

BODY PROTECTION:

MANUFACTURING: This product is FIFRA regulated. Refer to product labeling for end-user Personal Protection requirements. When handling or when exposure to concentrate is possible, wear: long-sleeved shirt and long pants, waterproof gloves, shoes and socks, face shield and chemical-resistant apron. Remove contaminated clothing and wash before rewearing. Wash separately from other laundry.

END-USER: When handling concentrate during mixing wear coveralls over minimimum of short pants and short sleeve shirt or chemical-resistant apron, chemical-resistant gloves, socks and chemical-resistant footwear. After concentrate is diluted, applicators may wear regular work clothes, socks, shoes and water-resistant gloves.

RESPIRATORY PROTECTION:

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MANUFACTURING: Use MSHA-NIOSH approved respirator for pesticides. END-USER: When making applications of diluted material in non-ventilated spaces, refer to label for recommended MSHA-NIOSH approved respirators to use.

Other protective equipment:

MANUFACTURING: Eyewash station and safety shower in manufacturing work area. Use ventilation adequate to maintain safe levels in manufacturing workplace.

Ventilation:

Use ventilation adequate to maintain safe levels. Use ventilation adequate to maintain safe levels.

Section 9 - PHYSICAL AND CHEMICAL PROPERTIES

Form : liquid

Color : medium to dark brown
Odor : slight Hydrocarbon

Vapor Pressure : No data.

at 20 °C Method: mmHg

This information is on the technical material.

Specific gravity : 0.98
Vapour density : No data.

Solubility : emulsifiable in/with water

pH-value (quant.) : 4.8

1% w/v at 20 Deg C

Volatile by volume :

Method: no data available

Section 10 – STABILITY AND REACTIVITY

HAZARDOUS REACTIONS (CONDITIONS TO AVOID)

Stability:

Stable under normal conditions.

Hazardous polymerization:

Will not occur

HAZARDOUS REACTIONS (MATERIALS TO AVOID)

strong oxidizing agents

HAZARDOUS DECOMPOSITION PRODUCTS

Combustion products - Carbon dioxide, carbon monoxide.

nitrogen oxides , sulfur oxides , ammonia .

halogens , halogen acids , possible trace amounts of carbonyl halide .

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Section 11 - TOXICOLOGICAL INFORMATION

ACUTE TOXICITY (LETHAL DOSES)

LD50 Oral male rats

Dose : 173 mg/kg

LD50 Oral female rats

Dose : 426 mg/kg

Additional inform. : Moderately toxic

LD50 Dermal rabbit/rat (both genders)
Dose : > 2000 mg/kg

LC50 Inhalation male rats

Dose : > 0.764 mg/l

LC50 Inhalation female rats

Dose : > 1.105 mg/l

GENERAL INFORMATION ABOUT ACUTE OR OTHER TOXICITIES

Other effects of overexposure:

Adverse effects after severe skin exposure to cypemethrin technical can include a tingling, burning, prickling, or numbing sensation which often begins about one hour after expoure and can persist up to 1-2 days with no residual effects. No other adverse clinical effects have been associated with exposure to this material.

Section 12 - ECOLOGICAL INFORMATION

ECOTOXICITY

Additional inform. : This material is extremely toxic to fish.

Section 13 – DISPOSAL CONSIDERATIONS

| This material is toxic to fish and other aquatic organisms.
| 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. Because of a flash point below 140 F, discarded product is a hazardous waste, No. D001, under RCRA, 40 CFR 261.21.

CONTAINER DISPOSAL:

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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. Empty container may contain explosive vapors. Keep away from heat, sparks and flames. Do not weld or use a cutting torch on or near container.

Section 14 - TRANSPORT INFORMATION

ROAD TRANSPORT DOT

Inform. applies to: Package capacity 450 l (119 gallons) or less:

Not regulated by DOT.

ROAD TRANSPORT DOT

Inform. applies to: Package capacity greater than 4501 (119 gallons):

PSN: Combustible liquid, n.o.s. (contains petroleum

solvents/cypermethrin, 25%)

Class : Combustible liquid

UN No. : NA1993

Packaging group : / III, Marine Pollutant

Section 15 – REGULATORY INFORMATION

HAZARDOUS INGREDIENTS

CYPERMETHRIN TECHNICAL

Petroleum Solvent

Other regulations, restrictions and prohibitions

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 contains the following chemicals subject to the reporting requirements of 40 CFR 372. < 10.1% 1,2,4-Trimethylbenzene (CAS No.

95-63-6)

EPA

EPA Registration no.: 10182-105

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Section 16 - OTHER INFORMATION

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