

ZENECA Ag Products Inc

MATERIAL SAFETY DATA SHEET

DEMAND CS

Version: 2

Date issued: 06/17/00

MSDS No. US006230_01

Date printed: 06/19/00

Section 1 – CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

Company	:	Zeneca Ag Products Inc 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	:	DEMAND CS
Product use	:	A pyrethroid insecticide. A microencapsulated formulation.

A Registered Trade Mark of a Zeneca Group Company.

Section 2 – COMPOSITION/INFORMATION ON INGREDIENTS

Identity	CAS-no.	Typical %	Other information
LAMBDA-CYHALOTHIN TECHNICAL			
water	91465-08-6	9.7 %	
Other Ingredients	7732-18-5	66.1 %	24.2 %
			Including 1,2,4 - Trimethylbenzene (CAS 95-63-6)

Ingredients not precisely identified are proprietary or non hazardous.
Values are not product specifications. The information contained here in
is for the concentrate as packaged, unless otherwise noted.

Section 3 – HAZARDS IDENTIFICATION

Physical hazards:

None

Health hazards:

Irritant (eye, skin, respiratory passages, skin sensitizer). Inhalation (TLV) Harmful (oral) Based on the aromatic petroleum solvent - irritant (skin), harmful (central nervous system depression, gastrointestinal disturbance).

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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, wash out mouth with water. 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. Immediately transport victim to an emergency facility.

IF INHALED:

Remove victim to fresh air. If not breathing, give artificial respiration, preferably mouth-to-mouth. If breathing is labored, give oxygen. Consult medical personnel.

MEDICAL ADVICE:

Induced emesis may be indicated in the alert patient who has ingested a large (intentional) quantity. Lavage may be indicated for the obtunded patient who has ingested such a large dose. Hydrocarbon pneumonitis is a risk if this product is aspirated.

Section 5 – FIRE FIGHTING MEASURES

Flash point :

> 212 °F

Method: (Setaflash CC)

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

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clothing.

NFPA RATING

Health

2

Fire

0

Reactivity

0

Unusual fire and explosion hazards:

In a fire situation, the product may support combustion after its water content has boiled off. Heating will generate toxic vapors. If not leaking, keep fire-exposed containers cool with a water spray to prevent rupture due to excessive heat. High pressure water hose may spread product from broken containers increasing contamination or fire hazard.

Contaminated building areas and equipment must not be used until they are properly decontaminated. Where possible, keep run off from the fire from entering surface waters or drains. The active ingredient is expected to be highly toxic to fish by analogy to other pyrethroid compounds.

Section 6 – ACCIDENTAL RELEASE MEASURES

PERSONAL PRECAUTIONS:

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

Make sure all personnel involved in the spill cleanup follow good industrial hygiene practices. Use adequate ventilation and wear a MSHA-NIOSH approved respirator for pesticides. Wear suitable protective clothing and eye protection to prevent skin and eye contact.

METHODS FOR CLEANING UP:

Do not allow the material to enter streams, sewers or other waterways. Spread a suitable absorbent such as clay on the spill, and shovel into an open drum.

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. Rinse with small amount of water and use absorbent to collect the wash solution. Sweep up and recover or mix material with moist absorbent and shovel into waste container.

Large spills should be handled according to a spill plan. Otherwise, in case of emergency call, 800-424-9300, CHEMTREC.

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Section 7 – HANDLING AND STORAGE

REQUIREMENTS FOR STORAGE ROOMS:

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.

ADDITIONAL INFORMATION:

Do not store near feed, food, water or within the reach of children.

Section 8 – EXPOSURE CONTROLS / PERSONAL PROTECTION

Occupational exposure limits

TLV or suggested control value:

No ACGIH TLV or OSHA PEL assigned. 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. Zeneca operates its facilities such that employee exposure to lambdacyhalothrin is kept below 0.04 mg/m³ as an 8-hour TWA (skin).

VENTILATION:

Use ventilation adequate to maintain safe levels.

Please refer to the product label for personal protective clothing/equipment.

APPLICATORS/HANDLERS: Please refer to the product label for personal protective clothing/equipment.

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.

BODY PROTECTION:

During Manufacturing: 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. Refer to product labeling for required end-user personal protection equipment.

RESPIRATORY PROTECTION:

If needed, use MSHA-NIOSH approved respirator for pesticides.

SPECIAL PRECAUTIONS OR OTHER COMMENTS:

Prevent skin and eye contact with this material. Observe OSHA PEL limitations. Avoid breathing vapors or spray mist. Showers at the end of the work day are desirable.

Other protective equipment:

An adequate supply of clean potable water should be available to allow

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thorough flushing of skin and eyes in event of contact with this compound.

Section 9 – PHYSICAL AND CHEMICAL PROPERTIES

Form : liquid
Color : off-white
Odor : slight odor typical of aromatic petroleum solvent
Boiling point : > 212 °F
Vapor Pressure :
 at 20 °C
 Method: mmHg
 1.5 x 10-9 (Lambda-cyhalothrin Technical)
Vapour density : No data.
 (air = 1)
Specific gravity: : 1.036
 at 20 °C
Solubility : dispersible
pH-value (quant.) : 7.3
 1% w/w dilution in deionized water
Volatile by volume: : No data.
Additional info. :
 This product is composed of microcapsules of
 lambda-cyhalothrin suspended in water. The
 microcapsules also contain a solvent.

Section 10 – STABILITY AND REACTIVITY

HAZARDOUS REACTIONS (CONDITIONS TO AVOID)

Stability:

Stable under normal conditions.

Incompatibility:

None known.

Hazardous polymerization:

Will not occur.

HAZARDOUS DECOMPOSITION PRODUCTS

Combustion products: Carbon dioxide, carbon monoxide. Nitrogen oxides, ammonia. Trace amounts of hydrogen cyanide.

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Section 11 – TOXICOLOGICAL INFORMATION

ACUTE TOXICITY (LETHAL DOSES)

LD50 Oral rat (both genders)	: > 5000 mg/kg
Additional inform.	: This material is classified as "very low toxicity" by ingestion. In humans, severe gastrointestinal disturbance is associated with ingestion of the hydrocarbon solvent. Ingestion of excessive quantities can also induce signs of central nervous system depression (e.g., drowsiness, dizziness, loss of coordination, and fatigue). Small amounts of the hydrocarbon solvent, if aspirated into the lungs during ingestion or subsequent vomiting, may induce severe lung congestion resulting in labored breathing, coma and death.
LC50 Inhalation rat	: > 4.62 mg/l
Period	: 4 hours
Additional inform.	: This material is classified as "moderately toxic" by inhalation.
LD50 Dermal rat (both genders)	: > 2000 mg/kg
Additional inform.	: Systemically toxic concentrations of this product will probably not be absorbed through human skin.

ACUTE TOXICITY (IRRITATION, SENSITIZATION ETC.)

Eye Irritation rabbit	
Results	: Mild irritant.
Additional inform.	: A similar degree of irritation will probably occur after human eye contact.
Skin Irritation rabbit	
Results	: Moderate irritant.
Skin Sensitization - Buehler	
Results	: It is a weak skin sensitizer in animal tests.

GENERAL INFORMATION ABOUT ACUTE OR OTHER TOXICITIES

Other effects of overexposure:

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Ingestion can induce nausea, vomiting, abdominal pain and diarrhea. Large doses ingested may cause disturbance of the nervous system. Skin exposures may cause a skin sensation called paresthesia, which is usually described as tingling, itching, burning, prickling, glowing, flushing, numbness or a chapped feeling. There is no evidence of any long-term or cumulative effects on the skin. Symptoms may develop shortly after exposure or can be delayed up to four hours and can persist between 2 and 30 hours following contact. The effect may result from transferring the material to the face from contaminated gloves and hands.

Section 12 – ECOLOGICAL INFORMATION

ECOTOXICITY

LC50 Rainbow trout	: 0.24 µg/l
Period	: 96 hours
Additional inform.	: This information is based on lambda-cyhalothrin technical material.
LC50 Bluegill sunfish	: 0.21 µg/l
Period	: 96 hours
Additional inform.	: This information is based on lambda-cyhalothrin technical material.
EC50 Daphnia magna	: 0.36 µg/l
Period	: 48 hours
Additional inform.	: This information is based on lambda-cyhalothrin technical material.
LC50 fathead minnows	: 0.7 µg/l
Additional inform.	: This information is based on lambda-cyhalothrin technical material.
LC50 Mirror Carp	: 0.5 µg/l
Period	: 96 hours
Additional inform.	: This information is based on lambda-cyhalothrin technical material.
LC50 guppy	: 2.3 µg/l
Period	: 96 hours
Additional inform.	: This information is based on lambda-cyhalothrin technical material.

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ADDITIONAL INFORMATION ABOUT ECOLOGY

Extremely toxic to fish and aquatic invertebrates.

Section 13 – DISPOSAL CONSIDERATIONS

Disposal Method:

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, rivers, or ponds.

Discarded product is not a hazardous waste under RCRA, 40 CFR 261.

Container disposal:

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

Section 14 – TRANSPORT INFORMATION

ROAD TRANSPORT DOT

Not regulated by DOT.

Section 15 – REGULATORY INFORMATION

Other regulations, restrictions and prohibitions

TSCA (Toxic Substances Control Act) Regulations, 40CFR 710:

This product is a pesticide and is exempt from TSCA regulation.

This product is regulated under FIFRA.

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

Section 313 Supplier Notification. This product contains the following toxic chemicals subject to the reporting requirements of Section 313 of the Emergency Planning and Community Right-To-Know Act of 1986 and of 40 CFR 372:

<5.0% 1,2,4-Trimethylbenzene (CAS 95-63-6).

FIFRA

EPA Registration no.: 10182-361

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Section 16 – 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.

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

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