

ZENECA Ag Products

MATERIAL SAFETY DATA SHEET

EPTAM 7E

Version: 1

Date issued: 05/29/98

MSDS No. US003580_01

Date printed: 06/01/98

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 : EPTAM 7E

Product use : Herbicide

A Registered Trade Mark of Zeneca Agricultural Products

Section 2 – COMPOSITION/INFORMATION ON INGREDIENTS

Identity CAS-no.	Typical %	Other information
EPTC (ISO) 759-94-4	87.8 %	
Other Ingredients:	12.2 %	Including Kerosene (CAS) 008008-20-6

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 (skin, eye). Harmful (cholinesterase inhibitor).

Section 4 – FIRST AID MEASURES

GENERAL ADVICE:

Call Zeneca's 24 hour Emergency Information Network at 1-800-FASTMED (327-8633) If a known exposure occurs or is suspected, immediately start the recommended procedures below. Simultaneously contact a Poison Center, a physician or the nearest hospital.

ZENECA Ag Products

MATERIAL SAFETY DATA SHEET

EPTAM 7E

Version: 1

Date issued: 05/29/98

MSDS No. US003580_01

Date printed: 06/01/98

Be sure to advise the person contacted that the product is a cholinesterase inhibitor. Inform the person contacted of the type and extent of exposure, describe the victim's symptoms, and follow the advice given.

IF IN EYES:

Immediately flush with plenty of water for at least 15 minutes. Irrigate with eyewash solution or clean water, holding the eyelids apart, for at least 15 minutes. Do not attempt to neutralize with chemical agents. Obtain immediate medical attention. Oils or ointments should not be used at this time. After initial flushing, remove any contact lenses and continue flushing for at least 15 minutes.

IF ON SKIN:

Wash material off the skin with plenty of soap and water. Wash contaminated clothing and decontaminate footwear before reuse.

IF SWALLOWED:

Provided the patient is conscious, give 1 or 2 glasses of water to drink. If swallowed seek medical advice immediately and show the container, label or this Data Sheet, if possible. If vomiting occurs, give fluids again. 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 cough or other respiratory symptoms develop, consult medical personnel.

MEDICAL ADVICE:

If cholinesterase inhibition is suspected, atropine by injection is antidotal. Pralidoxime chloride (2-PAM) is NOT recommended as an antidote for this compound. Thiocarbamates have been shown in laboratory animals to cause a disulfiram (Antabuse)-type reaction in combination with alcohol.

General information

Be sure to advise the person contacted that the product is a cholinesterase inhibitor. Inform the person contacted of the type and extent of exposure, describe the victim's symptoms, and follow the advice given.

ZENECA Ag Products

MATERIAL SAFETY DATA SHEET

EPTAM 7E

Version: 1

Date issued: 05/29/98

MSDS No. US003580_01

Date printed: 06/01/98

Section 5 – FIRE FIGHTING MEASURES

Flash point :

190 °F

Method: TCC

Autoignition temperature :

No data

Flammable limits (STP) :

No data

EXTINGUISHING MEDIA:

Use standard firefighting techniques in extinguishing fires involving this product. Use water spray, dry chemicals or carbon dioxide. Keep fire exposed containers cool by spraying with water. High pressure water hose may spread product from broken containers increasing contamination hazards. Contaminated buildings, areas and equipment must not be used until they are properly decontaminated.

FIRE AND EXPLOSION HAZARDS:

Combustible. It will support combustion and decomposes under fire conditions to give off toxic materials. The product contains kerosene and a propriety mixture of surfactants which contribute to its combustibility.

PROTECTIVE EQUIPMENT:

A self contained breathing apparatus and full protective clothing should be worn in fire conditions.

Special precautions or other comments:

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. 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. Keep container closed when not in use. Do not store near seeds or fertilizers. Prevent skin and eye contact. Avoid breathing vapors or aerosols. Workers must follow good hygiene practices to avoid accidental ingestion.

Section 6 – ACCIDENTAL RELEASE MEASURES

PERSONAL PRECAUTIONS:

Use adequate ventilation and wear an air-supplied respirator to prevent inhalation. Wear suitable protective clothing and eye protection to prevent skin and eye contact.

ENVIRONMENTAL PRECAUTIONS:

Washings must be prevented from entering surface water drains. Toxic to fish. Do not contaminate waterways by cleaning of equipment or by disposal of wastes. Discarded product is not a hazardous waste under RCRA, 40 CFR

ZENECA Ag Products

MATERIAL SAFETY DATA SHEET

EPTAM 7E

Version: 1

Date issued: 05/29/98

MSDS No. US003580_01

Date printed: 06/01/98

261.

METHODS FOR CLEANING UP:

Absorb spillages onto sand, earth or any suitable absorbent material. 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. Spread absorbent on the slurry liquid and shovel mixture into the open drum. Repeat if necessary. 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.

Section 7 – HANDLING AND STORAGE

Disposal method:

As of January 28, 1997 discarded product is not a hazardous waste under RCRA, 40 CFR 261.

Container disposal:

Triple rinse (or equivalent); then offer for recycling or reconditioning, or puncture and dispose of in a sanitary landfill or alternatives allowed by State and local authorities.

Section 8 – EXPOSURE CONTROLS / PERSONAL PROTECTION

Occupational exposure limits

Ventilation:

Use ventilation adequate to maintain safe levels.

This product is intended for use outdoors where engineering controls are not necessary. If use conditions are different (e.g. product reformulation or repackaging), employee exposure should be minimized using traditional techniques such as enclosed system design and/or local exhaust ventilation.

EYE PROTECTION:

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

SKIN PROTECTION:

Wear impervious gloves when handling.

BODY PROTECTION:

Applicators and other handlers must wear long-sleeved shirt and long pants, waterproof gloves, chemical-resistant footwear plus socks,

ZENECA Ag Products

MATERIAL SAFETY DATA SHEET

EPTAM 7E

Version: 1

Date issued: 05/29/98

MSDS No. US003580_01

Date printed: 06/01/98

protective eyewear, chemical-resistant headgear for overhead exposure, chemical-resistant apron when cleaning equipment, mixing or loading.

Remove contaminated clothing and wash before rewearing.

RESPIRATORY PROTECTION:

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

HYGENIC MEASURES:

Remove contaminated clothing and wash before rewearing.

GENERAL PERSONAL PROTECTION:

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 – PHYSICAL AND CHEMICAL PROPERTIES

Form	: liquid
Physical state	: Emulsifiable Concentrate
Color	: amber
Specific gravity:	: 0.9535 % at 68 °F

Section 10 – STABILITY AND REACTIVITY

HAZARDOUS REACTIONS (CONDITIONS TO AVOID)

Hazardous polymerization: Will not occur.

Stability: Stable under normal conditions.

Incompatibility: The product is relatively nonreactive. Noncorrosive to materials commonly used in the construction of process equipment, storage and shipping containers.

HAZARDOUS DECOMPOSITION PRODUCTS

Combustion products:
toxic materials

Section 11 – TOXICOLOGICAL INFORMATION

ACUTE TOXICITY (LETHAL DOSES)

LD50 Ingestion male rats

Dose : 1325 mg/kg

LD50 Ingestion female rats

Dose : 1500 mg/kg

Additional inform. : A single oral dose produced decreased physical activity, lacrimation, salivation and no mortality in

ZENECA Ag Products

MATERIAL SAFETY DATA SHEET

EPTAM 7E

Version: 1

Date issued: 05/29/98

MSDS No. US003580_01

Date printed: 06/01/98

female rats.

LD50 Dermal rabbit

Dose : 2750 mg/kg

Additional inform. : This material is classified as "slightly toxic" by dermal absorption.

LC50 Inhalation rat

Dose : 16 mg/l

ACUTE TOXICITY (IRRITATION, SENSITIZATION ETC.)

Eye Irritation Eye contact rabbit

Results : MODERATE IRRITANT

Additional inform. : A similar degree of irritation will probably occur after human eye contact.

Skin Sensitisation rabbit

Results : MILD IRRITANT

Additional inform. : Short contact periods with human skin will probably not produce irritation. Irritation characterized by mild to moderate erythema and edema can develop following repeated or prolonged contact with human skin.

Skin Sensitisation rabbit

Symptoms : A single dermal application of 2500 mg/kg or greater produced a mild to severe decrease in physical activity, diarrhea, salivation, weight loss, clonic seizures and grinding of teeth in rabbits.

Dose : 2500 mg/kg

Inhalation rat

Results : Low toxicity

Dose : 10.3 mg/l

Period : 4 hours

Additional inform. : This substance is considered slightly toxic by inhalation.

GENERAL INFORMATION ABOUT ACUTE OR OTHER TOXICITIES

Other effects of overexposure:

Laboratory tests in animals have shown that exposure to the active ingredient in this product, followed by ingestion of alcohol, may cause an adverse reaction, including low blood pressure, rapid heart beat, and flushing of the skin. Consumption of alcohol during and after exposure to this product should be avoided.

The principal routes of exposure are skin contact with the product and

ZENECA Ag Products

MATERIAL SAFETY DATA SHEET

EPTAM 7E

Version: 1

Date issued: 05/29/98

MSDS No. US003580_01

Date printed: 06/01/98

inhalation of its mists or vapors. This material is a cholinesterase inhibitor. Severe cases of cholinesterase inhibition can lead to convulsions, pulmonary edema, respiratory failure and death.

In lifetime studies in experimental animals, Eptam Technical caused nerve, muscle and heart muscle changes, as well as adverse effects in blood clotting. An epidemiologic survey of workers producing and formulating the compound has not shown evidence of these effects. Signs and symptoms of nerve damage may include weakness, numbness and tingling sensations of the hands and feet, muscle cramps and loss of motor function. Blood clotting abnormalities in humans might cause unusual bruising or a bleeding tendency.

Eptam is not teratogenic, mutagenic, nor carcinogenic.

There are no data available which addresses medical conditions that are generally recognized as being aggravated by exposure to this product.

General information

The active ingredient produces mild cholinesterase inhibition in experimental animals. Symptoms of cholinesterase inhibition may include salivation, sweating, headache, nausea, muscle twitching, tremors, incoordination, blurred vision, tears, abdominal cramps, diarrhea and chest discomfort.

Section 12 – ECOLOGICAL INFORMATION

BIOACCUMULATIVE POTENTIAL

Additional inform. : Toxic to fish.

Section 13 – DISPOSAL CONSIDERATIONS

Discarded product is not a hazardous waste under RCRA, 40 CFR 261. Disposal should be in accordance with local, state or national legislation. This product is toxic by skin absorption and must be handled with caution during disposal.

Section 14 – TRANSPORT INFORMATION

ROAD TRANSPORT DOT

Not regulated by DOT.

ZENECA Ag Products

MATERIAL SAFETY DATA SHEET

EPTAM 7E

Version: 1

Date issued: 05/29/98

MSDS No. US003580_01

Date printed: 06/01/98

Section 15 – REGULATORY INFORMATION

HAZARDOUS INGREDIENTS

EPTC (ISO)

Other Ingredients:

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):

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: 87.8% EPTC (CAS 759-94-4)

EPA Registration No.: 10182-220

Section 16 – OTHER INFORMATION

ZENECA Ag Products believes that the information and recommendations contained herein (including data and statements) are accurate as of the date thereof. NO WARRANTY OF FITNESS FOR ANY PARTICULAR PURPOSE, WARRANTY OF MERCHANTABILITY, OR ANY OTHER WARRANTY, EXPRESS OR IMPLIED, IS MADE CONCERNING THE INFORMATION PROVIDED HEREIN. The information provided herein relates to the specific product designated and may not be valid where such product is used in combination with any other materials or in any process. Further, since the conditions and methods of use of the product and of the information referred to herein are beyond the control of ZENECA Ag Products, ZENECA Ag Products expressly disclaims any and all liability as to any results obtained or arising from any use of the product or reliance on such information.

A vertical bar (|) in the left margin indicates an amendment from the previous version.