

ZENECA Ag Products

MATERIAL SAFETY DATA SHEET

TILLAM 6E

Version: 1

Date issued: 10/19/98

MSDS No. US003591_01

Date printed: 10/20/98

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 : TILLAM 6E

Product use : Herbicide

A Registered Trade Mark of Zeneca Agricultural Products

Section 2 – COMPOSITION/INFORMATION ON INGREDIENTS

Identity	CAS-no.	Typical %	Other information
pebulate (ISO)	1114-71-2	77.3 %	
Other Ingredients:		2.8 %	
Norpar 13	64771-72-8	14.9 %	

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).

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Section 4 – FIRST AID MEASURES

GENERAL ADVICE:

CALL A POISON CENTER 1-800 FASTMED (327-8633) OR A PHYSICIAN IMMEDIATELY. 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. Be sure to advise the person contacted that this product may be a mild 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. After initial flushing, remove any contact lenses and continue flushing for at least 15 minutes. Have eyes examined and treated by medical personnel.

IF ON SKIN:

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

IF SWALLOWED:

Provided the patient is conscious, give 1 or 2 glasses of water to drink. Never give anything by mouth to an unconscious person. 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 cough or other respiratory symptoms develop, consult medical personnel. If not breathing, give artificial respiration, preferably mouth-to-mouth. If breathing is labored, give oxygen. 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.

Inducing vomiting to remove this preparation from the stomach can increase the risk of chemical pneumonitis and pulmonary edema due to aspiration of stomach contents.

Thiocarbamates have been shown in laboratory animals to cause a disulfiram (Antabuse)-type reaction in combination with alcohol.

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Section 5 – FIRE FIGHTING MEASURES

Flash point :

> 194 °F

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, foam 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.

PROTECTIVE EQUIPMENT:

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

ADDITIONAL INFORMATION:

As in any fire, prevent human exposure to fire, smoke, fumes or products of combustion. Evacuate nonessential personnel from the fire area. Contaminated buildings, areas and equipment must not be used until they are properly decontaminated.

NFPA RATING

Health

2

Fire

2

Reactivity

1

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. A small spill can be handled routinely. 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.

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.

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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. Shovel into the open drum.

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

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, or within the reach of children. Keep food and animal feed in separate area away from the storage/use location.

Section 8 – EXPOSURE CONTROLS / PERSONAL PROTECTION

Occupational exposure limits

TLV or suggested control value:

No ACGIH TLV or OSHA PEL assigned. Minimize exposure in accordance with good hygiene practice.

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.

BODY PROTECTION:

Wear impervious gloves when handling. Depending on conditions of use, additional protection may be required such as apron, arm covers, or full body suit. Remove contaminated clothing and wash before rewearing.

RESPIRATORY PROTECTION:

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

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.

Special precautions or other comments:

Prevent skin and eye contact with this material. Avoid inhalation of spray mist. Workers must follow good personal hygiene practices. Wash with soap and water immediately after use or contact. Do not eat, drink, or smoke in areas where the material is being used.

Section 9 – PHYSICAL AND CHEMICAL PROPERTIES

Form	:	liquid
Color	:	amber
Specific gravity:	:	0.9328 at 68 °F
Solubility	:	Not soluble in water. Readily forms an emulsion.

Section 10 – STABILITY AND REACTIVITY

HAZARDOUS REACTIONS (CONDITIONS TO AVOID)

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 polymerization:

Will not occur.

HAZARDOUS DECOMPOSITION PRODUCTS

Combustion products: Toxic materials.

Section 11 – TOXICOLOGICAL INFORMATION

ACUTE TOXICITY (LETHAL DOSES)

LD50 Ingestion female rats

Dose : 1.39 g/kg

LD50 Ingestion male rats

Dose : 1.4 g/kg

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Additional inform. : A single dose of this product is classified as "slightly toxic" by ingestion. Irritation of the gastrointestinal tract 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 male rats

Dose : 3.7 mg/l

LC50 Inhalation female rats

Dose : 3.5 mg/l

Additional inform. : Inhalation of mists or vapors may cause headache or nausea. Inhalation exposure to high concentrations may cause effects related to cholinesterase inhibition.

LD50 Skin absorption rabbit

Dose : > 2 g/kg

Additional inform. : This material is classified as "slightly toxic" by skin absorption. A single dermal application of 2.0 g/kg produced a mild decrease in physical activity in rabbits.

Dermal rabbit

Period : 24-hours

Additional inform. : This material was severely irritating in rabbit dermal irritation studies. Local effects included moderate to severe erythema and mild edema. Similar results will probably occur following contact with human skin.

ACUTE TOXICITY (IRRITATION, SENSITIZATION ETC.)

Eye contact rabbit

Results : MILD IRRITANT

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

GENERAL INFORMATION ABOUT ACUTE OR OTHER TOXICITIES

General information

The active ingredient, S-propyl butylethylthiocarbamate, produces effects which suggest mild cholinesterase inhibition in experimental animals.

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However, it has not been demonstrated to cause these effects in humans. Symptoms of cholinesterase inhibition include salivation, sweating, headache, nausea, muscle twitching, tremors, incoordination, blurred vision, tearing, abdominal cramps, diarrhea and chest discomfort.

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 inhalation of its mists or vapors. The active ingredient produced mild cholinesterase inhibition in laboratory animals. Severe cases of cholinesterase inhibition can lead to convulsions, pulmonary edema, respiratory failure and death.

The active ingredient in this material has produced adverse effects on blood clotting in laboratory animal, but these effects were not seen in extensive studies of exposed workers. Signs of adverse effects of blood clotting include unusual bruising or a bleeding tendency.

Prolonged skin contact with this product should be avoided.

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

Section 12 – ECOLOGICAL INFORMATION

ADDITIONAL INFORMATION ABOUT ECOLOGY

This material is toxic to fish and wildlife.

Section 13 – DISPOSAL CONSIDERATIONS

Disposal Method:

This product contains Pebulate (CAS 1114-71-2), and effective August 9, 1995, EPA has classified Pebulate, when discarded, as a hazardous waste, number U391.

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.

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Section 14 – TRANSPORT INFORMATION

ROAD TRANSPORT DOT

NON-BULK: Not regulated by DOT.

ROAD TRANSPORT DOT

BULK: Combustible liquid, n.o.s. (contains kerosene), NA1993, PG III.

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.

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:

77.3% Pebulate (CAS 1114-71-2)

The product contains 77.3% of Pebulate (CAS 1114-71-2) whose reportable quantity is currently set at one pound.

EPA

EPA Registration no.: 10182-158

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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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.

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