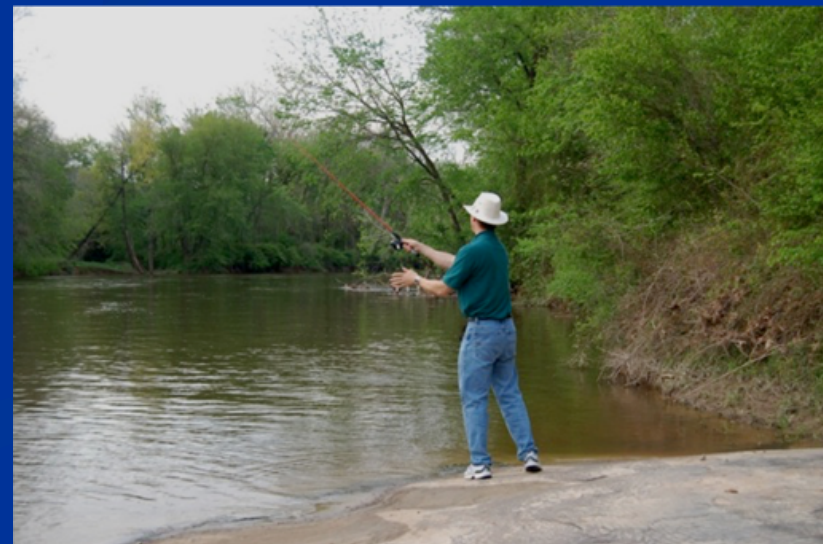


# Pesticide Storage

# Proper storage protects...

- People
- Animals
- Environment



# It also prevents...

- Damage to the pesticide and its container
- Theft , vandalism, and unauthorized use



# Always read and follow the label



- Before purchasing the product make sure that you can meet the minimum requirements for safe storage.
- Look for statements under “Storage and Disposal”, “Note”, or “General Instructions”.

# Label statements

- Mostly general
  - “store in cool, dry area”
  - “Keep out of reach...”
- Some specific
  - Temperature and humidity restrictions
- Allow for state and local laws to be stricter



# Material Safety Data Sheet

- Available at dealerships or on-line
- Lists physical and chemical properties
- Identifies hazards and first aid
- Provides additional handling and storage information

**syngenta** MATERIAL SAFETY DATA SHEET

Syngenta Crop Protection, Inc.  
Post Office Box 18300  
Greensboro, NC 27419

In Case of Emergency, Call  
1-800-888-8372

**1. PRODUCT IDENTIFICATION**

Product Name:	AATREX 4L	Product No.:	AT55A
EPA Signal Word:	Caution	CAS No.:	10117-94-0
Active Ingredient(s):	Azinphos (52.0%)		
Chemical Name:	1-(4-chlorophenyl)-3-isopropylamino-2-propanone		
Chemical Class:	Triazine Herbicide		
EPA Registration Number(s):	100-407	Responsible Parties:	2, 3, 8, 11, 15, 16

**2. COMPOSITION/INFORMATION ON INGREDIENTS**

Ingredient	Wt. %	ACGIH TLV	Other	OSHA/NIOSH Ceiling
Diethylamine (10.0%)	Not Established	100 mg/m <sup>3</sup> ceiling (short-term)	Not Established	No
Azinphos (52.0%)	Not Established	1 mg/m <sup>3</sup> TWA	1 mg/m <sup>3</sup> TWA**	IMC Group 1

\*\* recommended by NIOSH

Ingredients not precisely identified are proprietary or non-hazardous. Values are per product specifications.  
Syngenta Hazard Category: B, 3

**3. HAZARDS IDENTIFICATION**

**Impacts of Acute Exposure:**  
Causes mild eye irritation.

**Respiratory Decomposition Products:**  
Can decompose at high temperatures forming toxic gases.

**Chemical Properties:**  
Appearance: White liquid  
Color: Colorless

**Usual Fire, Explosion and Reactivity Hazards:**  
During a fire, irritating and possibly toxic gases may be generated by thermal decomposition or combustion.

**4. FIRST AID MEASURES**

Have the product container, label or Material Safety Data Sheet with you when calling Syngenta (800-888-8372), a poison control center or doctor, or going for treatment.

**Ingestion:** If swallowed: Call Syngenta (800-888-8372), a poison control center or doctor immediately for treatment advice. Have the person sip a glass of water if able to swallow. Do not induce vomiting unless told to do so after calling 800-888-8372 or by a poison control center or doctor. Do not give anything by mouth to an unconscious person.

**Eye Contact:** If in eyes: Hold eye open and rinse slowly and gently with water for 15-20 minutes. Remove contact lenses, if present, after 3 minutes, then continue rinsing eye. Call Syngenta (800-888-8372), a poison control center

Product Name: AATREX 4L Page: 1

# Choosing a location

- Locate in an area where flooding is unlikely
- Maintain a 50-100 ft. distance from wells, surface waters, animal feeding stations.



# Storage building

- Several options to explore
- High volume of pesticides should be stored in their own facility
- Many plans have engineering specs for mix/load area with storage and cleanup facilities





# Size depends on need

- Storage shed
- Portable storage unit
- Designated area inside another facility



T. Bowman, NCDA&CS



T. Bowman, NCDA&CS



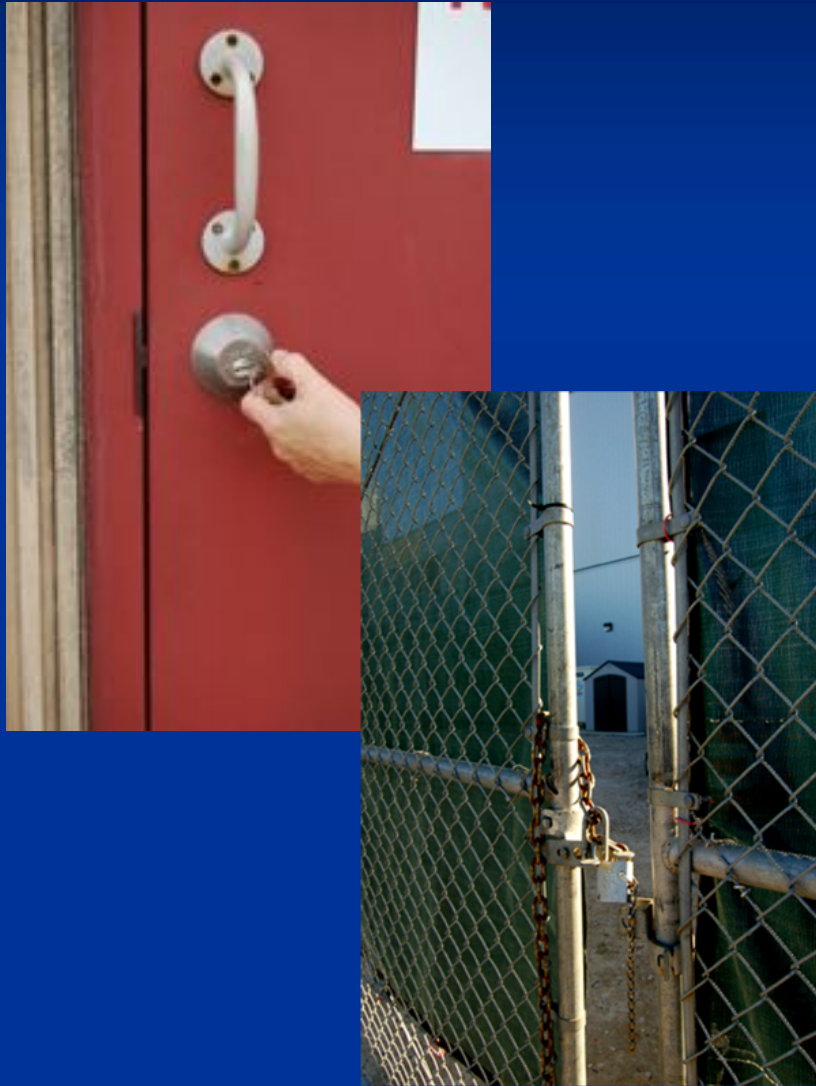
# Cabinets for small amounts



# Key features of all storage facilities

- Prevent unauthorized access
- Protect the environment
- Maintain appropriate conditions

# Keep it secure

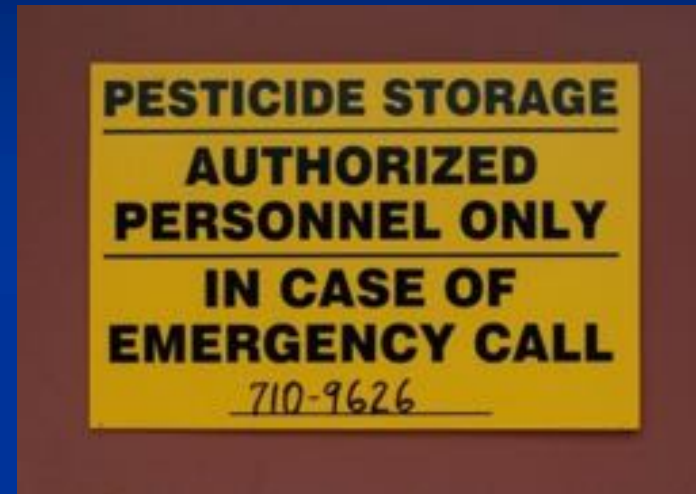


- Make sure all entrances are locked when not in use
- Gated entrances should be locked as well
- Limit access to keys

# Security lighting helps deter crime



# Post warning signs at entrances



T. Bowman, NCDA&CS

# Protecting the environment

- Floors should be made of non-porous material, free of cracks
- Allows for easier cleanup
- Construct floors with 2- to 4-inch below the level of the doors to contain large spills



# The problem with drains



- Existing floor drains must be sealed unless connected to a tank that can be cleaned out
- Outflow must be captured and disposed as hazardous waste



# Non-absorbent shelving material

- Metal shelves with lip to contain spills
- Wooden shelves coated with epoxy paint or plastic
- Containment trays or pans



# Proper Conditions: Ventilation and Humidity

- Constant ventilation needed to remove vapors, excess heat, and humidity
- Provides safe conditions for workers and extends shelf life of pesticides
- Use exhaust fans or passive vents
- Exhaust air directly to outside
- May be reduced in winter



# Proper Conditions: Temperature

- Maintain temps between 40 and 100 degrees F.
- Freezing may cause chemical separation and container failure
- Excess heat may cause explosion or fire
- Minimize fire hazards if you provide heating



# Consider spark-proof electrical fixtures and controls



# Which one of the following is not an important feature of a storage facility?

- a. Locked entrances
- b. Ventilation
- c. High-peaked roof
- d. Warning signs

# Which one of the following is not an important feature of a storage facility?

- a. Locked entrances
- b. Ventilation
- c. High-peaked roof
- d. Warning signs

The answer is c.

# The minimum distance between a storage facility and a well is:

- a. 25 feet
- b. 50 feet
- c. 75 feet
- d. 100 feet

# The minimum distance between a storage facility and a well is:

- a. 25 feet
- b. 50 feet
- c. 75 feet
- d. 100 feet

The answer is b.



# A practical temperature range to maintain inside storage facilities is:

- a. 40 to 100 degrees F
- b. 60 to 80 degrees F
- c. 30 to 90 degrees F
- d. 50 to 110 degrees F

# A practical temperature range to maintain inside storage facilities is:

- a. 40 to 100 degrees F
- b. 60 to 80 degrees F
- c. 30 to 90 degrees F
- d. 50 to 110 degrees F

The answer is a.

# Storage rules

- Do not eat, drink, or smoke in the storage area.
- Do not store pesticides in a way that could contaminate seed or animal feed.



# Storage rules

- Never store pesticides in milk jugs, soft drink bottles, fruit jars, or medicine bottles.
- Do not keep gasoline or other combustibles with pesticides.



# Safe storage practices/rules

- Use original labeled container
- If container is damaged, transfer to a container suitable for the pesticide
- If product label is damaged or becomes unreadable, print the following minimum information on container or tag
  - Common name
  - Percentage of each active ingredient
  - EPA registration number
  - Signal word
  - Use classification (restricted or general use)



# Safe storage practices

- Keep storage area organized and clean of debris
- Inspect containers regularly
- Keep metal containers and bags off the floor
- Place heavier containers and liquids on lower shelves.



# Safe storage practices

- If practical, store highly flammable/volatile pesticides separately
- Designate a bin or area for containers prepared for recycling



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# Be prepared for mishaps

- Provide clean water in case of contact with skin or eyes
- If running water not practical, store water in a large container
- Keep a first aid kit nearby





# Spill cleanup

- Spill kit: absorbent, broom, shovel, and a container with lid
- More supplies may be needed for high storage volumes
- Check MSDS for materials needed to deactivate spills



# Personal Protective Equipment



- PPE should be kept nearby, but not in the storage room to prevent contamination
- May be needed to respond to spills before entering storage area

# Plan for emergencies

- Train workers on how to respond to spills, fires and other emergencies
- Keep a fire extinguisher that is approved for chemical fires nearby
- Inspect the extinguisher on a regular basis



## The best way to store pesticides is in:

- a. Any empty pesticide container
- b. Glass bottles
- c. Any unbreakable container
- d. The original, labeled container

# The best way to store pesticides is in:

- a. Any empty pesticide container
- b. Glass bottles
- c. Any unbreakable container
- d. **The original, labeled container**

The answer is d.

## When a pesticide label gets unreadable:

- a. Throw the container away following state regulations for proper disposal
- b. Write the important information on the container with permanent marker
- c. Request that the pesticide company send you new product
- d. Use the pesticide immediately

# When a pesticide label gets unreadable:

- a. Throw the container away following state regulations for proper disposal
- b. Write the important information on the container with permanent marker
- c. Request that the pesticide company send you new product
- d. Use the pesticide immediately

The answer is b