



## **PESTICIDE TRANSPORTATION, STORAGE and FIRE PREVENTION**

Utah's commercial, noncommercial and private applicators transport and store a wide variety of pesticides. Such activities are subject to state and/or federal regulations.

### **TRANSPORTATION OF PESTICIDES**

The Transportation Safety Act of 1974 authorized the U.S. Department of Transportation (DOT) to declare, issue, and enforce hazardous materials regulations for all modes of transportation. These regulations cover the transportation of hazardous materials and include handling, labeling, and routing of such materials. When engaged in commerce and transportation of hazardous materials, all carriers are subject to DOT hazardous materials regulations. Some exceptions to regulations are provided for agricultural operations. Check with your supplier or DOT for exact procedures and regulations.

Carriers are required to make certain that employees who receive, process or transport hazardous materials are thoroughly instructed in the regulations that apply.

Cargo space or truck beds must be suitable for loading and holding hazardous materials. Vehicle condition must be safe for all situations or emergencies.

Shipping papers must be complete and accurate. Documentation should have an ID number, hazard class, quantity and the name and address of consignee (or consignor).

Carriers must obtain a proper shipper's certificate (unless exempted), display appropriate placard(s) and ID number(s), and check to be sure each container is properly labeled and packaged for transportation.

Hazardous material freight must be adequately blocked/braced and tied down to prevent movement or damage during transport.

In the event of an accident or incident involving the unintentional release of hazardous materials during transport, the carrier is responsible for all reporting requirements. Most accidents/incidents must be reported to DOT. The telephone number for Utah DOT is 800-424-8802. A written report may also be required.

## FIRE HAZARDS OF STORED PESTICIDES

Special hazards exist when fire strikes a facility in which pesticides are stored. These hazards include (1) the flammable or explosive potential of the chemicals and containers, (2) The toxic properties of the smoke, fumes, vapors, dusts, and liquids, and (3) the long-term affects of spilling or dispersing biologically active chemicals into the environment.

The active ingredients of most pesticides are not flammable, but the formulation solvents of liquid emulsifiable concentrates or oil solutions (xylene, kerosene, or other organic solvents) are, and present a substantial fire hazard. A structural fire where such pesticides are stored should be handled as though it was a flammable liquid or oil fire. Many liquid pesticides are stored in glass containers or metal cans or drums. The possibility that these containers will explode is another hazard of fires involving pesticides. The same applies to aerosol containers when exposed to excessive heat. The liquids, fumes, vapors, dusts, and/or smoke produced by all burning pesticides are toxic and some are extremely toxic. No one should try to extinguish such a fire without proper protective clothing and a supplied air device or a self-contained breathing apparatus. All persons in the area of a fire should be kept clear and up-wind from the site. Any inhabited buildings downwind from the fire should be evacuated. Chemically contaminated runoff water from a fire site can be toxic to plant and animal life and can also be destructive to wastewater treatment operations. Such runoff can leave toxic residues in soils and sediments. If there is runoff, it must be contained and possibly recovered.

## AMMONIUM NITRATE FERTILIZER

Uncontaminated ammonium nitrate fertilizer ( $\text{NH}_4\text{NO}_3$ ) is not a fire hazard when properly stored. However, when contaminated by fats, oils, acids, finely divided metals, or sulfur, it becomes highly sensitized, flammable, and explosive. Large amounts of oxygen are given off when this fertilizer burns, thus increasing fire intensity. Ammonium nitrate fertilizer should not be stored with pesticides, however firefighters should anticipate its presence.

## PESTICIDE STORAGE

Pesticides should be stored in a separate, building, room, or cabinet that remains locked. The storage area should be identified with an easily read sign clearly designating it as a pesticide storage area. All drains in pesticide storage buildings should be seal off to prevent the accidental release of pesticides. Never permit smoking, fires, or other ignition sources within the immediate area. The person(s) responsible for storing pesticides should notify the chief fire control officer in the area and indicate the type, quantity, and location of the stored pesticides. This should be done annually or more often.

In the event of a fire, the fire chief at the scene may decide to let the facility burn. This may occur if continued fire fighting will result in extensive run-off contamination or a greater hazard exists by extinguishing the fire.

## EMERGENCY ASSISTANCE

The Chemical Transportation Emergency Center (CHEMTREC) provides emergency information on chemicals and procedures for spills, fires, leaks, or exposures involving chemicals. CHEMTREC is a voluntary program operated by member companies. Assistance is available 24 hours a day, 7 days a week. Their nationwide emergency telephone number is 800-424-9300.

## FIRE RESPONSE

If a fire starts and can not be safely extinguished in a few seconds:

1. Call the local fire department or emergency services, give the location of the fire and explain that pesticides are involved.
2. Call a nearby hospital or Utah's poison control center, [(801) 581-2151, outside of Salt Lake area 800-456-7707], so they can be prepared to treat anyone, if needed.
3. Call the Utah Department of Agriculture and Food, Division of Plant Industry, (801) 538-7123, or your Agricultural Field Representative.
4. Do not try to extinguish the fire without adequate protective clothing and respiratory protection.
5. Keep all people up-wind of the fire and evacuate nearby buildings.
6. Avoid breathing any smoke, fumes, vapors, or dusts. Wear rubber boots and gloves.
7. Avoid using large amounts of water so toxic runoff will be kept to a minimum.
8. Control runoff by diking and blocking sewer lines so the runoff can be recovered if necessary and the possibility of environmental contamination is kept to a minimum.

Your primary concern after notifying the fire department should be to keep people out of the area, and to assist fire fighting personnel in controlling containment of contaminated runoff water. Insure that tools such as shovels and possibly even a front end loader are available to assist with containment. Think of creating earth contours prior to a fire to assist with containment in case of emergency.

### PROCEDURES AFTER THE FIRE

To protect yourself and others follow these personal precautions:

1. Wash and shower using large amounts of soap and water to remove all toxic chemicals. Pay special attention to scalp, fingernails, and all skins folds, creases and openings like ears, nose, eyes, etc.
2. Wash all personal clothing, protective clothing, and respirators. Leather shoes, boots or gloves may have absorbed pesticides and if worn again may cause unnecessary exposure. They may have to be discarded.
3. Be on the lookout for early symptoms of pesticide poisoning, such as headache, dizziness, nausea, sweating, or blurred vision. These symptoms may show up immediately or not for several hours.

To achieve proper cleanup of the fire site and disposal of the fire debris and damaged pesticides follow these procedures:

1. Close off the area and post a guard if necessary so access to the site can be controlled.
2. Pump standing water from runoff into tankers for disposal by an approved method.
3. Use the following removal procedures for fire debris and waste chemicals:

- a. Be sure all personnel involved understand the toxic hazards of the debris and that they are properly clothed.
- b. Use mechanized loaders and dump trucks to minimize human contact with contaminated materials.
- c. Avoid raising any dust.
- d. Transfer pesticides from broken or leaking containers to disposal drums and identify contents, if possible.
- e. Do not wash any material into a waterway or sewer system.
- f. Carry debris to an approved disposal site in tight, metal-bodied dump trucks or containers. Cover the load with a disposable cover so dust is not a problem. Avoid overloading so that no spills occur en route.
- g. Decontaminate tools, vehicles, etc. with a solution consisting of 1 quart sodium hypochlorite plus 1 cup of detergent in 2 gallons of water. Scrub thoroughly and rinse with clean water.
- h. Inspect the surrounding areas for possible contamination.

### SAFETY CONSIDERATIONS

All persons in the area of a pesticide fire should be kept clear and up-wind from the site. Any inhabited buildings downwind from the fire should be evacuated.

Chemically contaminated runoff water from a fire site can be toxic to plant and animal life and can also be destructive to wastewater treatment operations. Such runoff can leave toxic residues in soils and sediments. If there is runoff, it must be contained and possibly recovered.

Richard Beard  
Extension Machinery & Equipment Specialist

Howard Deer  
Extension Pesticide Specialist

### PRE-FIRE PLAN

Reduce the risk of a fire before it happens. Build a containment structure or earthen berm around the facility to contain any spills and any water runoff from the building.

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Date \_\_\_\_\_ Signature \_\_\_\_\_  
 Facility Name \_\_\_\_\_ Manager \_\_\_\_\_  
 Location \_\_\_\_\_

**EMERGENCY TELEPHONE NUMBERS:**

	Telephone Number	
	Day	Night
Fire Department _____	_____	_____
Manager of Facility _____	_____	_____
Asst. Manager _____	_____	_____
Physician _____	_____	_____

CHEMTREC (Chemical Transportation Emergency Center) 800-424-9300.  
 Utah Poison Control Center (801) 581-2151. Outside of Salt Lake area 800-456-7707.  
 Utah Department of Agriculture and Food, Division of Plant Industry (801) 538-7123.  
 Utah Department of Agriculture and Food, Agricultural Field Representative \_\_\_\_\_.

**LOCATION OF EMERGENCY EQUIPMENT & SUPPLIES:**

	Telephone Number	
	Day	Night
Front-end loaders		
Bulldozers		
Dump trucks		
Portable water pumps		

**SEAL OFF ALL FLOOR DRAINS IN PESTICIDE STORAGE BUILDINGS**

FIRE-DAMAGED PESTICIDES

Fire-damaged pesticides are considered hazardous wastes. The Utah Department of Environmental Quality, Division of Solid and Hazardous Waste regulates the disposal of hazardous wastes in Utah. The owner of fire-damaged pesticides is responsible for proper disposal and must comply with state laws regarding disposal of hazardous wastes. Accordingly, the owner should secure approval from the Division of Solid and Hazardous Waste, (801) 538-6170, prior to disposal .