

## Agricultural Spill Prevention & Management Guidelines

### Hazardous Substance Management

All hazardous substances, including chemical wastes, are to be managed in a way that prevents release. General spill prevention requirements include:

#### Container Management:

- A chemical inventory should be on file and updated annually.
- All material containers must be in good condition and compatible with the materials stored within.
- All hazardous substance containers must be accessible and spacing between containers must provide sufficient access to perform periodic inspections and respond to releases.
- Empty hazardous substance containers (drums) must have all markers and labels removed and the container marked with the word 'empty'.
- Any spills on the exterior of the container must be cleaned immediately.
- Flammable materials stored or dispensed from drums or totes must be grounded to prevent static spark.
- Do not overfill waste drums. 4" of headspace must remain to allow for expansion.

#### Good Housekeeping:

- All hazardous substances must be stored inside buildings, under cover or in proper weatherproof container.
- Store hazardous substances not used daily in cabinets, or in designated areas.
- All chemicals that are transferred from larger to smaller containers must be transferred using proper transfer pump, fittings, hoses, funnel or spigot.
- All hazardous substance containers should be closed while not in use.
- Use drip pans or other collection devices to contain drips or leaks from dispensing containers or equipment.
- Implement preventative maintenance activities to reduce the potential for release from equipment; including transfer pumps, fittings, and hoses.
- Immediately clean up and properly manage all small spills or leaks.
- Periodically inspect equipment and hazardous substance storage areas to ensure leaks or spills are not occurring.
- Use signage to identify hazardous substance storage or waste collection areas.
- Keep all work areas and hazardous substance storage areas clean and in good general condition.

#### Secondary containment:

- Store all bulk chemicals ( $\geq 55$  gallons) within appropriate secondary containment, or any sized chemical if there is a potential for release to the environment.
- Secondary containment should be checked periodically, and any spills identified in secondary containment must be immediately cleaned up and removed.

Marking/labeling:

- Ensure all hazardous substances, including chemical wastes, are properly marked and labeled in accordance with all federal, state and local regulations.
- Ensure that hazardous substances transferred to small containers are marked with the chemicals name (example- "Gasoline") and hazard (example- "Flammable").

## **Strategies for reducing spills or release of bulk materials**

Bulk dry fertilizers

Pay-loader buckets must not be overfilled; all floors and pathways must be kept clear of equipment, level and smooth. All dry materials must be cleaned up before switching to a different material or mix.

All work areas must be swept daily to avoid build-up of unknown materials; loading docks should be utilized to prevent spillage. All recycled scrap fertilizers must be stored indoors.

Bulk liquid fertilizers/ solutions

Loading sites should consist of a concave concrete floor with a sump hole to contain any spilled liquid. A holding tank should be in place to store all reclaimed liquids until they can be applied to crop land.

Consider location, avoiding water source points or runoff areas, when transferring from bulk transport to applicator in the field.

Equipment cleanup

Crop protection chemicals should be washed off equipment regularly (recommended daily).

Wash water and other liquids from equipment containing crop protection chemicals can be stored in a designated container and reused when next spraying that chemical and crop.

All drains, sewer locations, and openings to underground systems must be plugged in the areas used for rinsing and washing fertilizer and pesticide application equipment.

Equipment should be cleaned by rinsing in the field, or cleaned at a designated area made of impervious material. Storage capacities should be of adequate volume to hold dilute solutions

## **Hazardous Substance Inventory**

An inventory must be maintained for all hazardous substance stored in quantity (>55 gallons), and/or list of locations where non-bulk (< 55 Gallons) hazardous substances are stored (flammable cabinet, chemical storage area, etc...). Safety Data Sheets (SDS) for chemicals in the inventory should be kept on-site or accessible by electronic means.

## Spill Response Equipment

Spill response equipment must be maintained and located in areas where spills are likely to occur. Spill response materials should provide adequate response capabilities to manage any anticipated spill or release. The following general requirements include:

- Create an inventory of spill clean up materials that can be used in the event of a spill.
- Stock spill clean up materials / spill kits that are compatible with the hazardous substances stored on site;
- Spill response materials can include: chemical drums, universal absorbent socks, pillows or pads, floor dry, cat litter, shovels, brooms, disposable bags and ties, personal protective equipment & Emergency Response Guidebook.
- Locate spill kits in areas where spills are likely to occur (loading docks, chemical storage areas, locations where hazardous substance are being transferred);
- Spill kits should be sized to managing an anticipated release (spill equal to the largest container);
- Emergency response equipment should be inspected periodically to ensure that the spill kit is complete.

## Employee Training:

All employees must receive periodic training on the proper handling of hazardous substances; spill prevention practices, and emergency response procedures. Training must include a review of the spill prevention and emergency response plan, and a review of location and use of emergency response equipment. Training should be documented and kept on file at the employee's work location.

## Agrichemical Inventory List

Location / Farm \_\_\_\_\_ Date \_\_\_\_\_

Responsible Person \_\_\_\_\_

Product Name and Formulation (Trade/Brand name)	Max Lbs/Gals on site	Seasons on Hand SP=Spring, S=Summer, F=Fall, W=Winter, YR=Year Round	Building or Area stored
Ex: Anhydrous Ammonia	1,000 gal	SP	Nurse Tank In Field Only (Not staged at facility)

SDSs can be obtained from dealers, manufacturers and by internet website . Product name, formulation, active ingredient and percent active ingredient are on the agrichemical label.

## Petroleum and Flammables Inventory List

Location / Farm \_\_\_\_\_ Date \_\_\_\_\_

Responsible Person \_\_\_\_\_

Fuel Type	Total Capacity and Container Type	Seasons on Hand SP=Spring, S=Summer, F=Fall, W=Winter, YR=Year Round	Storage Location Description (e.g., In front of pole barn)
Diesel Fuel			
Gasoline			
Fuel Oil			
Motor Oil			
Hydraulic Oil			
Used Oil			
Propane (heating, drying, forklift)			
Oxygen/Acetylene (cart tanks & cylinder storage)			
Kerosene			
Aerosols (Paint / Solvents)			
(Other) _____			
(Other) _____			
(Other) _____			

SDSs can be obtained from dealers, manufacturers and by internet website . Product name, formulation, active ingredient and percent active ingredient are on the agrichemical label.

**Spill Response Materials Inventory List**

Location / Farm \_\_\_\_\_ Date \_\_\_\_\_

Responsible Person \_\_\_\_\_

**PERSONAL PROTECTIVE EQUIPMENT-** Check the chemical labels prior to spill cleanup to ensure adequate personal protective equipment is being used.

EQUIPMENT	ON SITE	OTHER	LOCATION
N95 Respirators			
Cartridge Respirators			
Rubber or Neoprene Boots			
Disposable Boots			
Chemical Gloves			
Disposable Gloves			
Chemical Suits			
Raingear			
Face Shield/Similar Protection			
Safety Goggles			
Hard Hats			
Hearing Protection			
Other:			
Other:			

**SPILL EQUIPMENT & SUPPLIES**

EQUIPMENT	ON SITE	OTHER	LOCATION
Mfg. Spill Kits w/ Drum ( ____ gal.)			
Absorbent Socks / Booms			
Absorbent Pillows / Pads			
Floor Dry / Cat Litter			
Neutralizers (acid or caustic)			
Containment Berms / Trays			
Drums w/ Lid ( ____ gal.)			
Disposable Bags w/ Ties			
Shop vac			
Shovels			
Brooms			
Other:			
Other:			
Other:			

**OTHER EMERGENCY EQUIPMENT**

- Drain Protection and Stormwater Control: \_\_\_\_\_

\_\_\_\_\_

- Tanks (of adequate capacity for holding recovered material): \_\_\_\_\_

\_\_\_\_\_

- Portable storage tanks (i.e., tanker truck, nurse tank, etc.) \_\_\_\_\_

\_\_\_\_\_

- Emergency electrical generating equipment: \_\_\_\_\_

- Traffic control equipment (to prevent vehicles and persons from entering incident site): \_\_\_\_\_

\_\_\_\_\_

**LIQUID RECOVERY EQUIPMENT**

- Liquid transfer pumps: \_\_\_\_\_

- Gasoline for pumps: \_\_\_\_\_

- Hoses & fittings for pumps: \_\_\_\_\_

-Other: \_\_\_\_\_

\_\_\_\_\_

**EXCAVATION EQUIPMENT**

- Front end loaders: \_\_\_\_\_

- Bulldozers: \_\_\_\_\_

- Dump trucks: \_\_\_\_\_

- Backhoe: \_\_\_\_\_

- Emergency Lighting: \_\_\_\_\_

- Other: \_\_\_\_\_

\_\_\_\_\_

\* Additional release remediation equipment may be needed as the situation demands