



AIRPORT TECHNICAL ASSISTANCE PROGRAM



Agricultural Aircraft Operations on Municipal Airports

A Guidebook for Municipal Airport Managers



CENTER FOR
TRANSPORTATION STUDIES
UNIVERSITY OF MINNESOTA



Agricultural Aircraft Operations on Municipal Airports

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Published by:

Minnesota Airport Technical Assistance Program (AirTAP)

Center for Transportation Studies (CTS)

University of Minnesota

511 Washington Ave. S.E.

Minneapolis, MN 55455

612-626-1077

www.airtap.umn.edu

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Table of Contents

Chapter 1. Overview	1
Chapter 2. Laws	3
Federal Laws	3
Federal Insecticide, Fungicide, and Rodenticide Act	3
Federal Aviation Regulations Part 137	3
State Regulations	3
Pesticide Control	3
Fertilizer, Soil Amendment, and Plant Amendment	3
Agricultural Chemical Liability	4
Agricultural Chemical Response and Reimbursement	4
Bulk Pesticide Storage	4
Security Guidelines	4
Chapter 3. Basic Information Requirements and Record Keeping	5
Airport Operator Records	5
Applicator Requirements	5
Chapter 4. Ag Aircraft—Pesticide Mixing and Loading Areas	7
Establishing a Mixing and Loading Area	7
Load Pad Requirements and Recommended Practices	7
Pesticide Containment	9
Mixing and Loading	9
Rinsate Management	9
Load Pad Design and Location	10
Load Pad Use	10
Multiple Operators	11
Multi-Purpose Load Pads	11
Chapter 5. Pesticide Storage	13
Chapter 6. Emergency Response	15
Emergency Response Plans	15
Spill Reporting	15
Chapter 7. Insurance/ACRRA	17
Chapter 8. Internet Resources	19

Attachments

Sample Material Safety Data Sheet (MSDS)	Attachment 1
Incident Response Plan and Sample Report	Attachment 2
Guidelines for Reporting Incidents	Attachment 3
Sample Operator Agreement	Attachment 4

Chapter 1. Overview

The guidelines contained in this guidebook were originally put together by the Minnesota Agricultural Aircraft Association (MAAA) and the Minnesota Council of Airports (MCOA) in 1995, with input from the Minnesota Department of Transportation (Mn/DOT)–Office of Aeronautics and the Minnesota Department of Agriculture (MDA). Issues surrounding the introduction of the storm water permit program, transient operations, and other regulations forced many airport managers to take a closer look at agricultural aircraft operations and evaluate their benefits and liabilities. This guidebook was developed to address their questions and concerns.

Today, agricultural aircraft operations remain a viable and important activity routinely conducted at Minnesota's airports. The issues previously raised are still relevant, and airport owners and operators are seeking to develop sustainable practices that ensure safe and environmentally responsible operations. In addition, many new resources are available from a variety of public agencies.

The Airport Technical Assistance Program (AirTAP) was asked to review the existing document and revise and update information as needed. Input was again solicited from the MAAA, MDA, MCOA, and Mn/DOT as well as the Minnesota Pollution Control Agency (MPCA) and the Federal Aviation Administration (FAA)–Minneapolis Airports District Office.

The intent of the publication is to provide airport managers with a better understanding of agricultural aircraft operations and recommended practices for dealing with agricultural spraying operations.

This guidebook is a compilation of the best information available at the time of publication. None of the agencies listed above, or their members or employees, have made, and do not hereby make, any representation or covenant with respect to the information and recommendations in this guidebook, nor will they be liable for any damages, losses, or claims, including those of an incidental or consequential nature, arising out of the use or inability to use this guidebook.

For further information or clarification on any of the issues discussed in this guidebook, contact:

Minnesota Department of Agriculture (MDA)
Pesticide and Fertilizer Management Division
625 N. Robert St.
St. Paul, MN 55155-2538
651-201-6121
www.mda.state.mn.us

Minnesota Agricultural Aircraft Association
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P. O. Box 248
Prior Lake, MN 55372
952-226-5874
www.mnagaviation.com

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Minnesota Dept. of Transportation (Mn/DOT)
Office of Aeronautics
222 E. Plato Blvd.
St. Paul, MN 55107
612-296-8202
www.dot.state.mn.us/aero

Chapter 2. Laws

Public airport owners operate their facilities in a highly regulated environment. Properly managing the airport involves developing sustainable practices to ensure safe, efficient, and environmentally responsible operations. Federal, state, and local rules and regulations assist with meeting these responsibilities. However, since all aircraft are entitled to use public airports, airport owners must ensure these rules provide a good balance between limiting liability and aiding efficiency for aircraft operators.

In addition to the rules and regulations that cover many aspects of general aviation, agricultural aviation is subject to additional regulations dealing primarily with the dispersal of fertilizers and pesticides through the aviation network. This chapter of the guidebook is designed to familiarize airport managers with several key laws governing agricultural aviation.

The laws and regulations listed below, along with additional information, are included in Chapter 8, “Internet Resources,” along with their corresponding Web addresses.

Federal Laws

Federal Insecticide, Fungicide, and Rodenticide Act

The Federal Insecticide, Fungicide, and Rodenticide Act (FIFRA) seeks to protect humans and the environment by regulating the production, distribution, and use of pesticides. (The term “pesticide” is a generic term encompassing all fungicides, insecticides, herbicides, etc.) FIFRA makes it illegal to use a pesticide in a manner inconsistent with its labeling. Among other things, a pesticide’s label will provide directions for proper use, storage, and disposal. If the airport manager has any questions regarding these issues, she or he may refer to the product label.

Federal Aviation Regulations, Part 137—Agricultural Aircraft Operations

Part 137 of the Federal Aviation Regulations (FAR) pertains specifically to agricultural aircraft operations. In certain instances, these regulations provide special exemptions. In addition, agricultural aircraft operations are subject to FAA Special Airworthiness Certificate regulations and policies.

State Regulations

Minnesota Statutes, Chapter 18B—Pesticide Control

The Minnesota Pesticide Control Law regulates pesticide use, storage, distribution, and disposal in Minnesota. This law governs applicator licensing, product registration, record keeping, pesticide storage, and other related details. Portions of this law appear periodically throughout this guidebook.

Preemption. It is important to note that section 18B.02 of the Pesticide Control Law specifically preempts ordinances by local governments as follows: “Except as otherwise specifically provided in this chapter, the provisions of this chapter preempt ordinances by local governments that prohibit or regulate any matter relating to the registration, labeling, distribution, sale, handling, use, application, or disposal of pesticides” (Minn. Statutes, section 18B.02).

Minnesota Statutes, Chapter 18C—Fertilizer, Soil Amendment, and Plant Amendment

Chapter 18C rules govern the labeling, registration, and distribution of materials sold for agricultural purposes and also require the development and maintenance of a contingency plan that describes storage,

handling, disposal, and incident handling practices.

Minnesota Statutes, Chapter 18D—Agricultural Chemical Liability

Chapter 18D rules govern the reporting requirements and response to a chemical incident.

Minnesota Statutes, Chapter 18E—Agricultural Chemical Response and Reimbursement

Minnesota has established a fund for reimbursement of responsible parties (under certain conditions) for costs incurred in cleaning up incidents involving agricultural chemicals. This fund is discussed in greater detail in Chapter 6 of this guidebook.

Minnesota Administrative Rules, Chapter 1505, parts 1505.3010 through 1505.3150—Bulk Pesticide Storage

The rules in parts 1505.3010 through 1505.3150 govern pesticide storage and are discussed in greater detail in Chapter 5 of this guidebook.

Security Guidelines

Transportation Security Administration

Security Guidelines for General Aviation Airports is a set of guidelines created for airport managers to voluntarily establish local security rules.

Aircraft Owners and Pilots Association

The Aircraft Owners and Pilots Association (AOPA) Airport Watch Program was established to help airport owners and aircraft operators implement general security procedures at airports.

National Agricultural Aviation Association

The National Agricultural Aviation Association (NAAA) has also established security procedures for agricultural aircraft operators to help them protect and secure their aircraft, equipment, and storage facilities.

Chapter 3. Basic Information Requirements and Record Keeping

The airport manager is responsible for ensuring that aeronautical activities on the airport are conducted in a legal, safe, and efficient manner. Initial communication between the airport manager and the agricultural aviation operator should address airport operational concerns prior to commencing agricultural aviation operations. The airport manager should cover airport familiarization, airport rules and regulations, and contact information and should initiate an Operator's Agreement (see Attachment 4). He or she should also perform an initial site and ground equipment inspection as well as a post-inspection prior to the operator departing the airfield. This chapter introduces the airport manager to the recommended documents, requirements, and procedures that should be in place prior to conducting operations.

Airport Operator Records

Each agricultural aviation operation (whether temporary or permanent) conducting activities at a public airport should be able to provide a copy of the following information to the airport manager upon request:

1. Federal Aviation Administration (FAA) commercial pilot's license, FAA medical certificate, and biannual pilot log entries
2. Current aircraft registration and airworthiness certificate with annual inspection
3. Minnesota Department of Agriculture commercial pesticide applicator's license
4. Federal Aviation Regulations Part 137 certificate
5. Minnesota Department of Transportation commercial license
6. Proof of liability insurance on aircraft and trucks
7. Verbal or written notice of departure. Temporary agricultural operators may be expected to make a reasonable effort to notify the airport manager upon termination of operations. In some cases, the manager and/or operator may wish to conduct a visual site inspection before the area is vacated.
8. Material Safety Data Sheets (MSDS) (see Attachment 1) for chemicals brought onto airport property. (Note: Because this could create a substantial amount of paperwork, the need for such a listing should be assessed individually by each airport manager.)

Airport managers may want to keep a permanent record containing copies of certificates and licenses of the ag operators conducting activities at their airports.

In addition to the previously mentioned requirements, the Minnesota pesticide law currently requires aerial application businesses to maintain records of their activities.

Applicator Requirements

The Minnesota Pesticide Control Law (Minn. Statutes 18B) establishes license and record-keeping requirements for persons engaged in for-hire and occupational pesticide use in Minnesota. (Additional informa-

tion is available from the Pesticide and Fertilizer Management Division of the Minnesota Department of Agriculture.) These requirements include the following components:

- **Pesticide Applicator License.** A person applying pesticide in Minnesota for hire, including pilots applying pesticide on a contract or for-hire basis, must first obtain a Commercial Pesticide Applicator License from the MDA. Occasionally, pilots may only apply pesticide to their employers' property, in which case they would need a Noncommercial Pesticide Applicator License if applying a restricted-use pesticide.
- **License I.D. Card.** A person who successfully obtains a license from the MDA receives an applicator I.D. card. Licensed persons must carry a copy of the card with them when applying pesticide and must post a copy at their place of business.
- **Financial Responsibility.** A person must meet the "financial responsibility" requirements established in the law to obtain a license to apply pesticide for hire. A person meets these requirements by maintaining required monetary levels of general liability insurance, a surety or performance bond, or net assets.
- **Pesticide Application Records.** Minnesota licensed **commercial pesticide applicators** must keep records for all applications performed. These records must include information about what product was applied, where the application was made, and who applied it, and they should be completed as soon as possible after the application is made.

The MDA provides sample pesticide application records on its Web site (see Chapter 8, "Internet Resources").

- **Fertilizer Licensing and Record Keeping.** A firm applying fertilizer in Minnesota for hire, including aerial operators working on contract or for hire, must first obtain a Commercial Fertilizer License. Fertilizer applications made for hire must be recorded on a fertilizer application record. The MDA provides samples of these records on its Web site.
- **Incident Response Plan.** All applicators licensed by the MDA must develop and maintain a plan that describes their pesticide storage, handling, and disposal practices. The plan must be kept at a principal place of business. A template of this plan is available on the MDA Web site.
- **Pesticide dealer license.** For an aerial applicator who sells restricted-use pesticides for application by another applicator, a **pesticide dealer license** is required. Pesticide dealers must keep records of
 - The name, address, and certification number of buyers;
 - The kind and amount of product purchased; and
 - The date of purchase.
- **Bulk Pesticide Storage.** An operator of a bulk storage facility (e.g., bulk or mini-bulk containers) must keep inspection and maintenance records, including "releases onto the loading area or into the secondary containment area, including the date, time, type of pesticide, volume, cause, actions to contain, and management of the release" (Minn. Rules, section 1505.3110).

Generally, all of the above records must be kept for a period of five years.

Airport managers who have questions regarding proper applicator licensing, record keeping, or pesticide storage and handling should contact the MDA at 651-201-6121.

Chapter 4. Agricultural Aircraft—Pesticide Mixing and Loading Areas

Establishing a Mixing and Loading Area

Each airport manager should consider human and environmental safety before locating a pesticide mixing and loading area at the airport. This includes proximity to wells and other water supplies, storm sewer and tile inlet locations, surface water, prevailing winds, and traffic patterns. In addition, such operations may encompass large areas of ramp space and other aircraft operation areas, making it difficult for other aircraft to maneuver efficiently. It is recommended that airport owners consider adding mixing and loading areas to the Airport Layout Plan (ALP) when planning for future development.

If the airport owner is considering installation of a permanent mixing and loading area, an environmental assessment may be necessary to determine baseline information, site suitability, and compliance with other state regulations. In some instances, a permit may be required for permanent load pads. Airport owners should check with the Minnesota Department of Agriculture (MDA) for permit requirements.

Load Pad Requirements and Recommended Practices

A load pad is an environmental protection device (permanent or temporary) that is placed under the aircraft to protect the ground surface from becoming contaminated in the event of a chemical leak or spill during mixing or loading. Minnesota has specific guidelines stating when a load pad is required and when it is not (see page 9). Load pads are effective environmental protection devices and as such, their use should be encouraged. In many cases, however, best management practices can accomplish similar environmental protection at a greatly reduced cost. The following guidelines should be considered for ag aircraft operations:

1. Each airport should develop an emergency response plan with procedures for proper reporting and clean-up of chemical and/or fuel releases. This plan should be reviewed with all fixed-base and itinerant agricultural operators.
2. All chemical and/or fuel spills and releases should be reported immediately to the airport manager and the state duty officer (see Attachment 3). The airport manager should develop a form to document the report (see Attachment 2).
3. All loading and unloading, mixing, and storage should be conducted only at a site designated by the airport manager. This designation should take into account the environmental considerations listed above. If at all possible, these activities should be conducted on a hard, impervious surface but should always remain separate from fuel pumps and fueling areas.
4. If possible, chemical mixing and storage trucks should remain on hard, impervious surfaces at all times.
5. Dry breaks should be present on the hoses of all aircraft proposing to mix and load pesticides at the airport.
6. Chemicals must be properly stored. In general, this means they should be secured from unauthorized access, stored in closed containers and on impervious surfaces, and contained to prevent an

incident. For more information regarding pesticide storage, refer to Chapter 5.

7. The airport manager should determine and communicate to the applicator whether spill clean-up materials will be provided by the applicator or the airport. This may include such materials as specifically designed absorbent pillows and protective clothing. Spill response materials should be kept near pesticide loading areas for immediate access. The airport manager should also communicate to the operator whether the operator or manager will be responsible for proper disposal of clean-up materials in the event of a spill.

If an ag operator is loading an aircraft from a pesticide container that contains 56 gallons or more, or 100 pounds or more net dry weight, Minnesota pesticide storage rule 1505.3070 requires the loading area to provide a means of containment that is elevated above the surrounding area, constructed of reinforced concrete or other Commissioner of Agriculture-approved material, and designed and constructed for the intended purpose. The containment area must not contain a drain and must comply with either item A or item B.

A. A curbed loading area without a sediment trap must comply with sub-items 1 and 2.

1. The perimeter of the area must be curbed a minimum of 3 inches in height to prevent runoff, and the curbed surface must form a liquid-tight containment area.
2. The curbed surface and containment area must have a minimum capacity of 1,000 U.S. gallons.*

B. A sloped surface that contains a sediment trap must comply with sub-items 1 through 3.

1. The perimeter of the area must be curbed to 3 inches in height to prevent runoff and must form a liquid-tight containment area.
2. The area must be sloped to a sediment trap used only for the temporary collection of spilled or released pesticides. The sediment trap must not be more than 2 feet deep or hold more than 109 U.S. gallons.
3. The area must have a minimum capacity of 1,000 U.S. gallons.*

Two excellent sources for additional information regarding specific design specifications and maintenance of load pads are:

- Minnesota Rules, section 1505.3070—Loading Areas
- *Designing Facilities for Pesticide & Fertilizer Containment*
MWPS—Iowa State University, Ames, Iowa 50011
515-294-4337

*Minimum capacity may vary based on the actual rated capacity of the storage tanks. Refer to the rules or contact the MDA for further information.

Pesticide Containment

General requirements pertaining to aerial applicators for the mixing, loading, and storage of pesticides are outlined below.

Mixing and Loading

Current regulations state that a person may not use, store, handle, distribute, or dispose of pesticide, rinsate, a pesticide container, or pesticide application equipment in a manner that will cause unreasonable adverse effects on the environment.

Requirements for containment at mixing and loading sites are different for small packaged pesticides (55 gallons or less) than for mini-bulk pesticides (56 to 499 gallons).

Small Packaged Pesticides

Current rules and regulations do not require a curbed load pad that provides containment for the airplane, pesticide containers, and the inductor (a pre-application mixing tank) when mixing and loading with small packaged pesticides unless it is required on the pesticide label. Safeguards such as drip pans, dry disconnects, and curbed load pads are strongly recommended to help reduce the chance of an incident.

Mini-Bulk Pesticides

Current rules and regulations require the following during the mixing and loading operation with mini-bulk pesticide containers:

- Containment for mini-bulk pesticide containers;
- Containment for the inductor if one is used; and
- Either a curbed load pad that provides adequate containment for the airplane during the mixing and loading operation, or the use of a dry disconnect on the hoses used for filling the airplane (under the alternative technology provision).

Rinsate Management

Rinsate is a diluted mixture of a pesticide or pesticides with water, solvents, oils, commercial rinsing agents, or other substances resulting from the cleaning of pesticide application equipment or pesticide containers.

All rinsate generated from mixing and loading operations must be used or disposed of in accordance with Minnesota Statutes, chapter 18B, and the Federal Insecticide, Fungicide, and Rodenticide Act (FIFRA). The manner of use and/or disposal must not inflict unreasonable adverse effects on the environment. The best use for rinsate is to apply it to the target crop according to label directions.

Unroofed curbed load pads can be a liability due to the amount of precipitation rinsate that is generated every time it rains. These types of load pads must have precipitation rinsate tanks on-site large enough to store accumulated precipitation. Do not assume that precipitation accumulated on an unroofed curbed load pad is ever clean enough to discharge into the environment. All accumulated precipitation should be used as make-up according to label directions.

Roofed facilities (curbed or uncurbed) offer the best solution for preventing contaminated precipitation rinsate. The use of roofed facilities with a curbed load pad and a dry disconnect offers the best possible safeguard for aerial applicator mixing and loading sites. Roofed facilities with no curbed

containment for the airplane but with metal containment for the mini-bulk and inductor, along with a dry disconnect for use when loading the airplane, offer the second-best safeguard for aerial applicator mixing and loading sites.

All load pads should be kept clean, and spills immediately cleaned up, to reduce contaminants in the rinsate and reduce the chance of tracking off the pad. Management of the load pad requires keeping the pad clean and minimizing the amount of rinsate generated.

Source: *Issues of Liability and Regulation Aerial Applicators—Municipal Airports Legislative Report* (Minnesota Department of Agriculture, January 2000).

The MDA should also review plans prior to construction to ensure compliance with *Minnesota Rules*.

MDA fact sheets related to containment and rinsate management can be downloaded from its Web site (see Chapter 8, “Internet Resources, Pesticide Mixing, Loading Areas, and Storage”). Titles include:

- *Pesticide Facility Requirements*
- *Precipitation Management*
- *Prevent Contamination at Your Facility. Clean is Best!*
- *Concrete Containment—Crack Repair and Maintenance*
- *Backflow Prevention Guidelines for Filling and Rinsing Fertilizer or Pesticide Application Tanks*

The final determination as to whether multiple operators may use one load pad should be left to the actual

Load Pad Design and Location

Curbed load pads used by aerial applicators will be allowed to have longer sloped entrance and exit ramps (greater than one foot of length per inch drop) than what is typically allowed with load pads used by ground applicators. Due to the size of the pad, the three-inch curb requirement may also need to be reevaluated for aerial applicator load pad designs.

A sump(s) should be installed to accommodate all rinsate generated during normal mixing and loading. Sumps protect rinsate from being blown outside the load area when an airplane exits the load pad.

All floor joints and curb/floor joints must be constructed with compatible waterstop materials and be leak-proof. There is an additional cost associated with construction of curbed hangars that are designed to be leakproof and meet all the requirements of bulk pesticide rules.

Well setbacks for pesticide mixing and loading areas are the same as for pesticide storage areas: 150 feet for an uncurbed load pad, 100 feet for an unroofed curbed load pad, and 50 feet for a roofed curbed load pad.

Load Pad Use

Exclusive use of a roofed permanent load pad should be encouraged for those aerial applicators that work predominantly out of one airport facility. Use of a dry disconnect (with drip pans and a portable containment for pesticides and the inductor) would be the most economical way for aerial applicators that work out of more than one airport facility to safeguard their mixing and loading operation.

Multiple Operators

A load pad shared by more than one aerial applicator can increase liability if materials spilled on the pad are not immediately and completely cleaned up. A contaminated load pad that is unroofed magnifies this problem, since rainfall increases the amount of contaminated precipitation rinsate generated. Aerial applicators should be hesitant to use any rinsate where unknown contaminants from another applicator are present.

Source: *Issues of Liability and Regulation Aerial Applicators—Municipal Airports Legislative Report* (Minnesota Department of Agriculture, January 2000).

owner or lessor of the load pad. However, multiple use has significant risk and is discouraged for the following reasons:

1. **Liability.** The major drawback to multiple use is liability. Ultimately, the owner or lessor of the load pad will most likely be held liable for any environmental damage that occurs in the immediate area of the load pad. For this reason, multiple use is not advised.
2. **Cross-contamination.** Careful management of a load pad is necessary to ensure that any and all leaks and/or spills are promptly cleaned up and removed from the surface of the load pad. If a temporary user spills a pesticide and neglects to properly clean up the spill, any subsequent spills and clean-ups may be cross-contaminated with the residue from the unremedied first spill.
3. **Human exposure.** In the event of a spill or leak, the load pad surface may become contaminated with pesticides. If more than one operator is using the pad, a communications breakdown could cause other operators to be exposed to a previous pesticide spill before they are aware of the spill situation.
4. **Maintenance.** Proper maintenance of a load pad includes record keeping, inspections, and routine repair (see Minn. Rules 1505.3110). This maintenance is best accomplished by a single owner or lessor who is held solely or primarily responsible for the maintenance of the load pad.
5. **Economics.** Both temporary and permanent load pads are costly investments. An owner or lessor who has made this investment is more likely to properly use and maintain the load pad than one who hasn't.

Multi-Purpose Load Pads

Recent storm water regulations have raised the issue of multi-purpose load pads. Unfortunately, the idea of utilizing agricultural aircraft load pads for purposes such as deicing and refueling was found to be unfeasible at this time. Several factors contributed to this determination:

1. **Cross-contamination.** The combination of deicing chemicals and/or fuel (which could come into contact with the surface of the load pad) and pesticides (which may be spilled onto the surface of the load pad) would likely become a “hazardous material mix.” This mix may be required to be treated as hazardous waste. Current laws allow most pesticides that leak or spill onto the pad to be recovered, and land spread, in accordance with state law and according to the pesticides’ label directions. Pesticide spills are generally not treated as hazardous waste.
2. **Weight specifications.** Most of the current engineering specifications for ag aircraft load pads

have taken into consideration the size and weight of ag aircraft. The specifications do not factor in larger aircraft that would make use of deicing and refueling stations.

3. Human exposure. Contact with a surface that has the potential to become contaminated with pesticides should be limited to those who have proper knowledge and training in the area of pesticide use.
4. Multiple operators. It may be difficult for more than one operator to share the same space due to the operators' schedules and their lack of time to wait for load pad availability.

Chapter 5. Pesticide Storage

In general, Minnesota laws and rules require the following of all pesticide storage locations (for additional information and specific language, refer to Minnesota Statutes, section 18B.14, and Minnesota Rules, sections 1505.3010 through 1505.3150):

1. Pesticides must be stored only in their original containers. Pesticides must be separated from food, feed, seed, livestock remedies, drugs, plants, and other products or materials stored, displayed, or offered for sale in a manner that prevents contamination that would cause injury or damage to other products or materials.
2. Open pesticide containers may not be displayed for sale under any circumstances.
3. A person may not allow a pesticide, rinsate, or unrinsed pesticide container to be stored or kept, or to remain in or on any site, without safeguards adequate to prevent an incident.
4. Storage areas must be secured against access by unauthorized persons and provide protection against access by wildlife. Appurtenances must be fenced or otherwise secured to provide reasonable protection against vandalism or unauthorized access that may result in a release.
5. Every storage container must bear a current pesticide product label as required by the U.S. Environmental Protection Agency.

Small packaged pesticides must be secure (e.g., in a locked fenced area or building) and stored a minimum of 150 feet from a well.

Mini-bulk pesticides must be stored in a secure area, such as in a locked fenced area or building with adequate containment (110 percent of largest container if roofed and 125 percent of largest container if unroofed). If properly contained, the following well setbacks apply: 100 feet for unroofed containment areas and 50 feet for roofed containment areas.

Source: *Issues of Liability and Regulation Aerial Applicators—Municipal Airports Legislative Report* (Minnesota Department of Agriculture, January 2000).

As noted in Chapter 4, an airport manager may also wish to adopt additional best management practices for pesticide storage, such as:

- Pesticide storage activities may take place only in designated areas.
- Emergency response and clean-up materials must be kept in pesticide storage areas.
- All spills and releases in the storage area must be reported immediately on a form provided by the airport.
- To better assess and manage the chemical storage taking place at the airport, the airport manager may wish to have applicators submit Material Safety Data Sheets (MSDS) for all pesticides being stored on airport property.

Several MDA fact sheets related to storage are available online and can be downloaded from the MDA Web site (see Chapter 8, “Internet Resources,” Pesticide Mixing, Loading Areas, and Storage). These include:

- *Facility Requirements, Pesticide*
- *Pesticide and Fertilizer Storage: Small Package Requirements*
- *Pesticide Storage: Mini-Bulk Requirements*
- *Management and Disposal of Pesticide Containers*

Chapter 6. Emergency Response

Even a well-managed aerial application business is subject to an accidental pesticide release: equipment fails, people make mistakes, and spills or fires may occur. While the timing of these occurrences cannot be predicted, a well-planned response to an accident can keep a small problem from turning into a major one.

Emergency Response Plans

As discussed in previous sections of this guidebook, airports should develop specific emergency response plans tailored to their facilities. These emergency response plans should clearly designate what steps to take in the event of an emergency. The response plan should also address the location of and the entity responsible for providing emergency response equipment (protective clothing, absorbent pillows, etc.).

Facilities that store or handle pesticides are required by the Superfund Amendments and Reauthorization Act (SARA) to develop an emergency response plan. The airport manager should check with aerial application businesses operating at his or her facility to ensure that each business has individually completed such a plan and is familiar with the airport's plan as well. See Attachment 2 for the MDA's short version of an incident response plan.

Spill Reporting

In most instances, state law requires a responsible party or an owner of real property to report an incident to the Commissioner of Agriculture immediately upon discovery. Also, the responsible party may be required to submit a written report of the incident to the commissioner in the form and by the time prescribed by the commissioner (see Minn. Statute 18D.103). The MDA uses the Department of Public Safety Duty Officer program for reporting emergencies; the 24-hour incident hotline number is 651-640-5451 (metro) or 1-800-422-0798 (greater Minnesota). The hotline number and the Minnesota Duty Officer Emergency Notification placard may be found in Attachment 3.

Additional copies of the Minnesota Duty Officer Emergency Notification placard and of MDA Agricultural Chemical Emergency Response information can be downloaded from the Internet (see Chapter 8, "Internet Resources," Emergency Response).

Chapter 7. Insurance/ACRRA

In 1989, the Minnesota legislature recognized that environmental liability insurance was becoming increasingly difficult for pesticide applicators to purchase. In response, the legislature created the Agricultural Chemical Response and Reimbursement Account (ACRRA).

The premise for the account was simple: place a surcharge on pesticide licenses and agricultural chemical sales and use the funds collected to provide low-cost insurance for pesticide applicators and others who might need to access the fund in the event of an ag chemical release or spill.

ACRRA pays 80 percent of the corrective action costs greater than \$1,000, up to an amount equal to or lesser than \$350,000, for a maximum reimbursement amount of \$279,200.

ACRRA payments are subject to approval by the ACRRA board based on its determining whether:

- The eligible person took all reasonable action necessary to minimize and abate an incident;
- The eligible person complied with any reasonable requests for corrective action issued to the eligible person by the commissioner;
- The eligible person complied with corrective action orders if issued by the commissioner; and
- The incident was reported to the MDA as required by law.

In 2002, the legislature amended the ACRRA statutes in response to concerns by Minnesota airports that they might not be defined as “eligible persons” should they need to access the ACRRA funds. The definition of “eligible persons” was expanded to include:

The owners of municipal airports in Minnesota where a licensed aerial pesticide applicator has caused an incident through storage, handling, or distribution operations for agricultural chemicals if (i) the commissioner has determined that corrective action is necessary and (ii) the commissioner determines, and the Agricultural Chemical Response Compensation Board concurs, that based on an affirmative showing made by the owner, a responsible party cannot be identified or the identified responsible party is unable to comply with an order for corrective action (Chapter 18E.02 Subdivision 5(2)).

See Chapter 8, “Internet Resources,” to download Minnesota Statutes, section 18E, and the ACRRA guidance document ACRRA.001, *Reimbursement of Costs for Agricultural Chemical Incident Cleanups*, which details this process.

Chapter 8. Internet Resources

Organizations

Aircraft Owners and Pilots Association (AOPA)
www.aopa.org

Airport Technical Assistance Program (AirTAP)
www.airtap.umn.edu

Environmental Protection Agency (EPA)
www.epa.gov

Federal Aviation Administration (FAA)
www.faa.gov

National Agricultural Aviation Association (NAAA)
www.agaviation.org

Minnesota Agriculture Aircraft Association (MAAA)
www.mnagaviation.com

Minnesota Council of Airports (MCOA)
www.mnairports.org

Minnesota Department of Agriculture–Pesticide and Fertilizer Management Division
www.mda.state.mn.us

Minnesota Department of Transportation–Office of Aeronautics
www.dot.state.mn.us/aero/index.html

Minnesota Pollution Control Agency (MPCA)
www.pca.state.mn.us

Federal Regulations

Federal Aviation Regulations Part 137–Agricultural Aircraft
Electronic Code of Federal Regulations
<http://ecfr.gpoaccess.gov/cgi/t/text/text-idx?c=ecfr&sid=b887a7e1598a21c7b618c8201c4bc6d1&rqn=div5&view=text&node=14:3.0.1.1.9&idno=14>

Special Airworthiness Certificates Regulations & Policies
Federal Aviation Administration
www.faa.gov/aircraft/air_cert/airworthiness_certification/sp_awcert/sp_awcert_regs/

Federal Insecticide, Fungicide, and Rodenticide Act (FIFRA)
U.S. Environmental Protection Agency
www.epa.gov/oecaagct/lfra.html

State Regulations

Minnesota Office of the Revisor of Statutes
www.revisor.leg.state.mn.us/rules/?id=8800

Minnesota Statutes

Chapter 18B—Pesticide Control
www.revisor.leg.state.mn.us/statutes/?id=18B

Chapter 18C—Fertilizer, Soil Amendment, and Plant Amendment
www.revisor.leg.state.mn.us/statutes/?id=18C

Chapter 18D—Agricultural Chemical Liability
www.revisor.leg.state.mn.us/statutes/?id=18D

Chapter 18E—Agricultural Chemical Response and Reimbursement
www.revisor.leg.state.mn.us/statutes/?id=18E

Minnesota Administrative Rules

Chapter 1505, parts 1505.3010 –1505.3150—Bulk Pesticide Storage
www.revisor.leg.state.mn.us/rules/?id=1505

Forms

Agricultural Aircraft Operator Certificate Application
Federal Aviation Administration
forms.faa.gov/info_new.asp?form_number=8710-3&open_doc=N

Minnesota Application for Commercial Operations License
Minnesota Department of Transportation—Office of Aeronautics
www.dot.state.mn.us/aero/avoffice/ops/licensing/commops.html

Minnesota Pesticide Applicator's License
Minnesota Department of Agriculture
www.mda.state.mn.us/licensing/pestfert/pesticideapplicator.htm

Security

Security Guidelines for General Aviation Airports
Transportation Security Administration
www.tsa.gov/assets/pdf/security_guidelines_for_general_aviation_airports.pdf

AOPA's Security Resources
Aircraft Owners and Pilots Association
www.aopa.org/security.html

NAAA's Security Resources
National Agricultural Aviation Association
www.agaviation.org/securitypage.htm

Pesticide Mixing, Loading Areas, and Storage

Minnesota Department of Agriculture
www.mda.state.mn.us/chemicals/factshts.htm

Fact sheets on the following topics:

- *Backflow Prevention Guidelines for Filling and Rinsing Fertilizer or Pesticide Application Tanks*
- *Contamination at Your Facility?*
- *Concrete Containment—Crack Repair and Maintenance*
- *Facility Requirements, Pesticide*
- *Pesticide and Fertilizer Storage: Small Package Requirements*
- *Pesticide Storage: Mini-Bulk Requirements*
- *Pesticide Management*
- *Management & Disposal of Pesticide Containers*

Issues of Liability and Regulation Aerial Applicators—Municipal Airports Legislative Report
Minnesota Department of Agriculture, January 2000
www.leg.state.mn.us/edocs/edocsasp?oclcnumber=43543776

Emergency Response

Airport Emergency Plan—FAA Advisory Circular 150/5200-31A
Federal Aviation Administration
www.faa.gov/airports_airtraffic/airports/resources/advisory_circulars/media/150-5200-31A/150_5200_31a.pdf

MPCA Emergency Response
Minnesota Pollution Control Agency
www.pca.state.mn.us/cleanup/ert.html

Minnesota Duty Officer Emergency Notification Placard
Minnesota Department of Public Safety
www.dps.state.mn.us/dhsem/uploadedfile/doplacard.pdf

Incident Response Unit
Minnesota Department of Agriculture
www.mda.state.mn.us/chemicals/spills/incidentresponse/default.htm

Guidelines for Developing and Maintaining an Incident Response Plan
Minnesota Department of Agriculture
www.mda.state.mn.us/chemicals/spills/incidentresponse/responseplan.htm

Non-Bulk Agricultural Chemical Storage
Minnesota Department of Agriculture
www.mda.state.mn.us/news/publications/chemfert/responseplan.pdf

Bulk Agricultural Chemical Storage
Minnesota Department of Agriculture
www.mda.state.mn.us/news/publications/chemfert/responseplanlong.pdf

Agricultural Chemical Emergency Response
Minnesota Department of Agriculture
www.mda.state.mn.us/chemicals/spills/incidentresponse/emergresponse.htm

Insurance/ACRRA

Agricultural Voluntary Investigation & Cleanup (AgVIC) Program and the *Agricultural Chemical Response and Reimbursement Account (ACRRA) Relationship* (Guidance Document 6)
Minnesota Department of Agriculture
www.mda.state.mn.us/chemicals/spills/incidentresponse/gd06.htm

Attachment 1

Sample Material Safety Data Sheet (MSDS)

MATERIAL SAFETY DATA SHEET



Emergency Phone: 800-992-5994
Dow AgroSciences LLC
Indianapolis, IN 46268

Effective Date: 25-Jul-07
Product Code: 08505
MSDS: 002805

STINGER* HERBICIDE

1. PRODUCT AND COMPANY IDENTIFICATION:

PRODUCT: Stinger* Herbicide

COMPANY IDENTIFICATION:

Dow AgroSciences LLC
9330 Zionsville Road
Indianapolis, IN 46268-1189

2. HAZARDOUS IDENTIFICATIONS:

EMERGENCY OVERVIEW

Red to brown liquid with a sweet odor. May cause eye and skin irritation.

EMERGENCY PHONE NUMBER: 800-992-5994

3. COMPOSITION/INFORMATION ON INGREDIENTS:

Component Name	CAS Number	W/W%
Clopyralid MEA Salt	57754-85-5	40.9
Isopropanol	67-63-0	5.0
Ethylene oxide, propylene oxide and di-sec-butylphenol polymer	69029-39-6	1.0
Balance		53.1

4. FIRST AID:

EYES: Hold eyes open and rinse slowly and gently with water for 15-20 minutes. Remove contact lenses, if present, after the first 5 minutes, then continue rinsing eyes. Call a poison control center or doctor for treatment advice.

SKIN: Take off contaminated clothing. Rinse skin immediately with plenty of water for 15-20 minutes. Call a poison control center or doctor for treatment advice.

INGESTION: Call a poison control center or doctor immediately for treatment advice. Have person sip a glass of water if able to swallow. Do not induce vomiting unless told to do so by the poison control center or doctor. Never give anything by mouth to an unconscious person.

INHALATION: Move person to fresh air. If person is not breathing, call an emergency responder or ambulance, and then give artificial respiration; if by mouth to mouth use rescuer protection (pocket mask, etc.). Call a poison control center or doctor for treatment advice.

NOTE TO PHYSICIAN: No specific antidote. Supportive care. Treatment based on judgment of the physician in response to reactions of the patient.

5. FIRE FIGHTING MEASURES:

FLASH POINT: 117°F (47.2C)

METHOD USED: TCC

FLAMMABLE LIMITS

LFL: Not determined

UFL: Not determined

EXTINGUISHING MEDIA: Water fog, alcohol resistant foam, CO₂, dry chemical, or foam preferred.

FIRE & EXPLOSION HAZARDS: Toxic, irritating fumes may be produced if product is involved in a fire. Contain water from fire-fighting to prevent entry into surface or ground water.

FIRE-FIGHTING EQUIPMENT: Under fire conditions use a positive-pressure self-contained breathing apparatus and protective clothing.

6. ACCIDENTAL RELEASE MEASURES:

ACTION TO TAKE FOR SPILLS/LEAKS: Absorb small spills with inert material such as sawdust or sand. Place in suitable container for disposal. Report large spills to Dow AgroSciences on 800-992-5994.

7. HANDLING AND STORAGE:

PRECAUTIONS TO BE TAKEN IN HANDLING AND STORAGE: Keep out of reach of children and animals. Do not swallow. Avoid contact with eyes, skin and clothing. Wash thoroughly after handling. Remove and wash contaminated clothing. Store in original container with the lid tightly closed. This product is combustible. Do not use or store this product near a heat source, open flame or other sources of ignition, particularly if storage temperatures are near the flash point (117°F, 47.2C). Noxious fumes may be formed under fire conditions.

*Trademark of Dow AgroSciences LLC

MATERIAL SAFETY DATA SHEET



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8. EXPOSURE CONTROLS/PERSONAL PROTECTION:

These precautions are suggested for conditions where the potential for exposure exists. Emergency conditions may require additional precautions.

EXPOSURE GUIDELINES:

Clopyralid: Dow AgroSciences Industrial Hygiene Guideline is 10 mg/M³.

Isopropanol: ACGIH TLV and OSHA PEL are 400 ppm TWA, 500 ppm STEL.

Ethylene oxide, propylene oxide and di-sec-butylphenol polymer: Dow AgroSciences Industrial Hygiene Guideline is 2 mg/M³.

ENGINEERING CONTROLS: Provide general and/or local exhaust ventilation to control airborne levels below the exposure guidelines. Use only with adequate ventilation.

RECOMMENDATIONS FOR MANUFACTURING, COMMERCIAL BLENDING, AND PACKAGING WORKERS:

RESPIRATORY PROTECTION: Atmospheric levels should be maintained below the exposure guideline. When respiratory protection is required use an approved air-purifying or positive-pressure supplied-air respirator depending on the potential airborne concentration. For emergency and other conditions where the exposure guideline may be greatly exceeded, use an approved positive-pressure self-contained breathing apparatus or positive-pressure airline with auxiliary self-contained air supply. In confined or poorly ventilated areas, use an approved positive-pressure supplied-air respirator. The following should be effective types of air-purifying respirators: organic vapor cartridge.

SKIN PROTECTION: Use gloves chemically resistant to this material when prolonged or frequently repeated contact could occur.

EYE PROTECTION: Use safety glasses. If exposure causes eye discomfort, use a full-face respirator.

APPLICATORS AND ALL OTHER HANDLERS: Refer to the product label for personal protective clothing and equipment.

9. PHYSICAL AND CHEMICAL PROPERTIES:

BOILING POINT: 212°F (100C)
VAPOR PRESSURE: 23.5 mmHg @ 20C
VAPOR DENSITY: 1.06 @ 20C
SOLUBILITY IN WATER: Miscible
SPECIFIC GRAVITY: 1.161 @ 68°F, 20C
APPEARANCE: Red to brown liquid
ODOR: Sweet
pH: 7.5-8.0

10. STABILITY AND REACTIVITY:

STABILITY: (CONDITIONS TO AVOID) Store under cool, dry conditions. Avoid elevated temperatures and direct sunlight. Combustible. Do not use or store near heat, open flame, or other sources of ignition, especially if temperatures are near or at the flash point.

INCOMPATIBILITY: (SPECIFIC MATERIALS TO AVOID) Avoid acid, oxidizing material, halogenated organics, brass, copper, zinc, and aluminum.

HAZARDOUS DECOMPOSITION PRODUCTS: Hydrogen chloride, nitrogen oxides under fire conditions, chlorinated pyridine.

HAZARDOUS POLYMERIZATION: Not known to occur.

11. TOXICOLOGICAL INFORMATION:

POTENTIAL HEALTH EFFECTS: This section includes possible adverse effects, which could occur if this material is not handled in the recommended manner.

EYE: May cause very slight temporary corneal injury. Vapor may cause irritation experienced as mild discomfort and redness.

SKIN: Prolonged contact may cause moderate skin irritation with local redness. Prolonged skin contact is unlikely to result in absorption of harmful amounts. The LD₅₀ for skin absorption in rabbits is >5,000 mg/kg.

INGESTION: Very low toxicity if swallowed. The oral LD₅₀ for rats is >5,000 mg/kg. Harmful effects not anticipated from swallowing small amounts.

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MATERIAL SAFETY DATA SHEET



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INHALATION: Vapor concentrations are attainable which could be hazardous on single exposure. The aerosol LC₅₀ for rats is >3.0 mg/L for 4 hours. Excessive exposure (400 ppm) to isopropanol may cause eye, nose and throat irritation. Incoordination, confusion, hypertension, hypothermia, circulatory collapse, respiratory arrest and death may occur following longer duration of higher levels. Observations in animals include middle ear lining damage upon exposure to vapors of isopropanol. However, the relevance of this to humans is unknown.

SYSTEMIC (OTHER TARGET ORGAN) EFFECTS: In animals, effects have been reported on the following organs: liver and kidney. Observations in animals include lethargy. For isopropanol: kidney effects and/or tumors have been observed in male rats. These effects are believed to be species specific and unlikely to occur in humans.

CANCER INFORMATION: The components tested did not cause cancer in laboratory animals.

TERATOLOGY (BIRTH DEFECTS): Clopyralid caused birth defects in laboratory animal studies, but only at greatly exaggerated doses that were severely toxic to the mothers. No birth defects were observed in animals given clopyralid at doses several times greater than those expected during normal exposure. Isopropanol has been toxic to the fetus in laboratory animals at doses toxic to the mother.

REPRODUCTIVE EFFECTS: For the components tested, in animal studies, did not interfere with reproduction.

MUTAGENICITY: For the components tested, in-vitro and animal genetic toxicity studies were negative.

12. ECOLOGICAL INFORMATION:

ENVIRONMENTAL FATE:

MOVEMENT & PARTITIONING:

Based largely or completely on information for clopyralid. Bioconcentration potential is low (BCF <100 or Log Pow <3). Potential for mobility in soil is very high (Koc between 0 and 50).

DEGRADATION & PERSISTENCE:

Based largely or completely on information for clopyralid. Biodegradation under aerobic laboratory conditions is below detectable limits (BOD20 or BOD28/ThOD is <2.5%).

ECOTOXICOLOGY:

Based largely or completely on information for clopyralid. Material is practically non-toxic to aquatic organisms on an acute bases (LC₅₀/EC₅₀ >100 mg/L in most sensitive species tested).

13. DISPOSAL CONSIDERATIONS:

DISPOSAL METHOD: If wastes and/or containers cannot be disposed of according to the product label directions, disposal of this material must be in accordance with your local or area regulatory authorities. This information presented below only applies to the material as supplied. The identification based on characteristic(s) or listing may not apply if the material has been used or otherwise contaminated. It is the responsibility of the waste generator to determine the toxicity and physical properties of the material generated to determine the proper waste identification and disposal methods in compliance with applicable regulations. If the material as supplied becomes a waste, follow all applicable regional, national and local laws and regulations.

14. TRANSPORT INFORMATION:

U.S. DEPARTMENT OF TRANSPORTATION INFORMATION:

DOT Non-Bulk: Not Regulated

DOT Bulk:

ID Number: NA1993

Proper Shipping Name: Combustible Liquid, N.O.S.

Technical Name: Contains Isopropanol

Hazard Class: Combustible Liquid

Packing Group: PG III

MATERIAL SAFETY DATA SHEET



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Indianapolis, IN 46268

STINGER* HERBICIDE

Effective Date: 25-Jul-07
Product Code: 08505
MSDS: 002805

IMDG

ID Number: UN1993
Proper Shipping Name: Flammable Liquid, N.O.S.
Technical Name: Contains Isopropal
Hazard Class: 3
Packing Group: PG III
EMS Number: F-E,S-E

ICAO/IATA:

ID Number: UN1993
Proper Shipping Name: Flammable Liquid, N.O.S.
Technical Name: Contains Isopropal
Hazard Class: 3
Packing Group: PG III
Cargo Packing Instruction: 310
Passenger Packing Instruction: 309

This information is not intended to convey all specific regulatory or operational requirements/information relating to this product. Additional transportation system information can be obtained through an authorized sales or customer service representative. It is the responsibility of the transporting organization to follow all applicable laws, regulations and rules relating to the transportation of the material.

15. REGULATORY INFORMATION:

NOTICE: The information herein is presented in good faith and believed to be accurate as of the effective date shown above. However, no warranty, express or implied, is given. Regulatory requirements are subject to change and may differ from one location to another; it is the buyer's responsibility to ensure that its activities comply with federal, state or provincial, and local laws. The following specific information is made for the purpose of complying with numerous federal, state or provincial, and local laws and regulations.

U.S. REGULATIONS

SARA 313 INFORMATION: This product contains the following substances subject to the reporting requirements of Section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 and 40 CFR Part 372:

<u>CHEMICAL NAME</u>	<u>CAS NUMBER</u>	<u>CONCENTRATION</u>
Isopropanol	67-63-0	5.0%

SARA HAZARD CATEGORY: This product has been reviewed according to the EPA "Hazard Categories" promulgated under Sections 311 and 312 of the Superfund Amendment and Reauthorization Act of 1986 (SARA Title III) and is considered, under applicable definitions, to meet the following categories:

An immediate health hazard
A delayed health hazard

TOXIC SUBSTANCES CONTROL ACT (TSCA): All ingredients are on the TSCA inventory or are not required to be listed on the TSCA inventory.

STATE RIGHT-TO-KNOW: The following product components are cited on certain state lists as mentioned. Non-listed components may be shown in the composition section of the MSDS.

<u>CHEMICAL NAME</u>	<u>CAS NUMBER</u>	<u>LIST</u>
Isopropanol	67-63-0	NJ1 NJ2 NJ3 PA1 PA3

NJ1=New Jersey Special Health Hazard Substance (present at > or = to 0.1%).
NJ2=New Jersey Environmental Hazardous Substance (present at > or = to 1.0%).
NJ3=New Jersey Workplace Hazardous Substance (present at > or = to 1.0%).
PA1=Pennsylvania Hazardous Substance (present at > or = to 1.0%).
PA3=Pennsylvania Environmental Hazardous Substance (present at > or = to 1.0%).

OSHA HAZARD COMMUNICATION STANDARD: This product is a "Hazardous Chemical" as defined by the OSHA Hazard Communication Standard, 29 CFR 1910.1200.

NATIONAL FIRE PROTECTION ASSOCIATION (NFPA) RATINGS:

Health	2
Flammability	2
Reactivity	1

COMPREHENSIVE ENVIRONMENTAL RESPONSE COMPENSATION AND LIABILITY ACT (CERCLA, or SUPERFUND): To the best of our knowledge, this product contains no chemical subject to reporting under CERCLA.

*Trademark of Dow AgroSciences LLC

MATERIAL SAFETY DATA SHEET



STINGER* HERBICIDE

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Dow AgroSciences LLC
Indianapolis, IN 46268

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16. OTHER INFORMATION:

MSDS STATUS: Revised Sections: 2,3,4,6,8,11,12,13,14
Reference: DR-0135-0385
Replaces MSDS Dated: 2/14/03
Document Code: D03-043-006
Replaces Document Code: D03-043-005

The Information Herein Is Given In Good Faith, But No
Warranty, Express or Implied, Is Made. Consult Dow
AgroSciences for Further Information.

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Attachment 2

Incident Response Plan and Sample Report

GUIDELINES FOR DEVELOPING AND MAINTAINING AN

Incident Response Plan

WHAT IS AN INCIDENT RESPONSE PLAN AND WHO IS REQUIRED TO HAVE A PLAN?

An incident response plan is a document you develop to help you prepare for and deal with pesticide and/or fertilizer releases (incidents) quickly and effectively. A plan describes the pesticide and/or fertilizer storage, handling, disposal and incident handling practices of your business.

Some businesses are legally required to develop and maintain an incident response plan. If your business is engaged in one or more of the following, it must establish and maintain an incident response plan:

- Commercial pesticide application;
- Noncommercial pesticide application;
- Structural pest control;
- Storage of bulk pesticides; and/or
- Storage of bulk fertilizers, including anhydrous ammonia.

Regardless of whether or not you store these products in bulk, an incident response plan is part of good emergency planning.

WHAT INFORMATION SHOULD BE INCLUDED IN THE PLAN?

An incident response plan should describe in detail your storage, handling, disposal practices and procedures for pesticide, fertilizer, soil amendment, plant amendment, and anhydrous products being stored.

If your site stores bulk pesticides, your plan is required to include, but is not limited to the following:

- Identity and telephone numbers of persons and agencies to be contacted in the event of a release;
- Complete copy of the container label for each bulk pesticide stored at the facility;
- Complete copy of the material safety data sheet (MSDS) for each bulk pesticide stored at the facility;
- Procedures and equipment to be used to control and respond to a release and to recover released product;

- Identification and location of each bulk pesticide container located at the facility, as well as the type of pesticide stored in each. (*NOTE: The plan does not need to identify each individual mini-bulk container if it identifies a general location within the facility where all mini-bulks are stored.*)

Location maps are effective tools for illustrating much of this information. See suggested format on the other side of this fact sheet.

WHERE SHOULD I KEEP THE PLAN?

The incident response plan must be kept in a prominent location at the storage facility or business, accessible to all employees. We recommend that another copy of the plan be kept at a different location so that if an incident makes the site or plan inaccessible, you will still be able to obtain a copy of the plan.

If you store pesticides, you are also required to provide a copy of the plan to the local fire and police departments so they can appropriately plan for incident response at your facility.

All persons working with agricultural chemicals should be familiar with incident response, health and safety aspects of product labels and MSDS's. Experience at actual incident sites has shown that the most important information to have available during an incident are product labels, MSDS's, product inventory records and location of the product at the facility. Keep in mind that the incident response plan should be reviewed with all employees working with agricultural chemicals prior to each application season.

REFERENCES

- Minnesota Statutes
Section 18B.37, subdivision 4 (storage, handling and disposal plan); Section 18C.235, subdivision 1 (contingency plan for storage of bulk products)
- Minnesota Rules
Part 1505.3100 (release response plan); Part 1510.0372, subpart 2.P.; and Part 1510.0402, subpart 2.L.

Suggested Format for an Incident Response Plan

1. Emergency response contact list

- a. Facility personnel
- b. Other facilities familiar with site
- c. Emergency assistance
- d. Major chemical company representatives

2. Product labels

A complete copy for each pesticide and fertilizer product stored at the facility.

3. Product material safety data sheets (MSDS)

A complete copy for each pesticide and fertilizer product stored at the facility.

4. First aid information

5. Pre-fire planning

Invite local fire department to inspect facility annually. Familiarize them with the facility and its storage areas as well as drainage at and adjacent to the facility; brief them on precautions and tactics for fighting agricultural chemicals fires; and provide them with names and numbers of persons to be contacted in case of fire.

6. Maps

- a. Map of facility that includes:
 - (1) Buildings;
 - (2) Pesticide/Fertilizer storage areas;
 - (3) Mixing, loading and rinsate recycling areas;
 - (4) Vehicle parking and washing areas;
 - (5) Sanitary sewer inlets, storm sewer inlets and outlets, tile inlets and outlets; and
 - (6) Wells.
For wells within 150 feet of any existing or proposed loading (rinse pad) and secondary containment (diked) areas, include the year installed and depth.
- b. Facility map key and scale.
- c. Map of surrounding area.
- d. Surrounding area map key.

7. Use and handling procedures

Procedures should thoroughly detail the facility's pesticide/fertilizer handling practices and rinsate use, including container rinsing and disposal methods and equipment (e.g. type of backflow prevention device being used.)

8. Emergency equipment and supplies for pesticide and fertilizer incidents

- a. Identify available, working personal protective equipment and supplies. Specify location(s) at facility where these materials are stored.
- b. Identify available, working emergency equipment and supplies. Specify location(s) at facility where these materials are stored.
- c. List of emergency contractors.

9. Release procedures

Thoroughly describe the facility's pesticide and/or fertilizer release response procedures and practices, including use and/or disposal of spilled materials.

10. Anhydrous Ammonia (NH₃) equipment

Identify NH₃ equipment and specify location of this equipment at the facility.

11. Anhydrous Ammonia (NH₃) procedures

Thoroughly describe procedures and practices for handling NH₃ and dealing with releases.

12. Employee release response training

Document employee name and date they completed training.

13. Date last revised/updated

The incident response plan must be kept current. It should reflect any changes in storage, handling or disposal practices and procedures. This is especially important when there are frequent changes in personnel, product being stored, and/or site safeguards. The MDA recommends that, at a minimum, you review and update your plan annually.

AIRPORT INCIDENT REPORT

DATE: _____ TIME: _____ REPORTED BY: _____

NAME: _____

ADDRESS: _____

PHONE # _____

LOCATION: _____

WEATHER CONDITIONS: _____

NATURE OF INCIDENT: _____

AIRCRAFT TYPE & TAIL NO.: _____

NATURE OF MEDICAL INCIDENT: _____

TELEPHONE NUMBERS

Airport Manager	home:	POLICE DEPT.	
		FIRE DEPT.	
	cell:	SHERIFF DEPT.	
		HOSPITAL	
Airport Maint.	home:	SPILL DUTY OFFICER	800-422-0798
	cell:		

COMMENTS: _____

Attachment 3

Guidelines for Reporting Incidents

Guidance for Reporting

Agricultural Chemical Incidents

Guidance Document 1

24-HOUR REPORTING HOTLINE

(651) 649-5451 (METRO) OR (800) 422-0798 (NON-METRO)

What incidents need to be reported?

State law requires that agricultural chemical incidents must be immediately reported to the Minnesota Department of Agriculture (MDA). An "incident" means a flood, fire, tornado, transportation accident, storage container rupture, portable container rupture, leak, spill, emission, discharge, escape, disposal, or other event that releases or immediately threatens to release an agricultural chemical, accidentally or otherwise into the environment and may cause unreasonable adverse effects on the environment. An incident does not include a release resulting from the normal use of a product or practice in accordance with the law.

Violations of this reporting requirement may result in enforcement action by the MDA and in civil penalties, or ineligibility for reimbursement of cleanup costs. Reporting is necessary no matter how small the quantity involved, except for incidents which meet **ALL** of the following criteria:

- * the responsible party or owner of real property is a licensed or certified private or commercial pesticide applicator; AND
- * the amount of pesticide involved in the release and any other releases which have occurred at the site is less than what can be legally applied to one acre of agricultural cropland during the preceding year; AND,
- * the release was not into or near public water or ground water.

Following are some general guidelines on reporting agricultural chemical incidents. Additional reporting requirements may exist under other state or federal laws, local ordinances or permits. Understanding all reporting requirements is the responsibility of

anyone who transports, uses, stores, or handles agricultural chemicals.

When does an incident need to be reported and recovered?

Under most circumstances an agricultural chemical incident must be reported to MDA immediately. Implementation of steps to recover agricultural chemicals that may adversely affect the environment must also begin immediately, no matter how small the incident.

How to report an agricultural chemical incident:

MDA staff are available to receive reports 24 hours a day, 7 days a week. MDA uses the Department of Public Safety's duty officer system. When you call (651) 649-5451 (metro) or (800) 422-0798 (non-metro) day or night, the duty officer will relay your message to an MDA staff person on duty who will call you back promptly with further instructions.

Who must report an incident?

A responsible party¹ or an owner of real property² must **immediately** notify MDA of incidents of any agricultural chemical³ under its control.

1. A "responsible party" is a person who, at the time of an incident, has custody of, control of, or responsibility for a pesticide, fertilizer, pesticide or fertilizer container, or pesticide or fertilizer rinsate.
2. An "owner of real property" is a person who is in possession of, has the right of control of, or controls the use of real property where an incident takes place, including but not limited to a fee owner, lessee, lessor, renter, tenant,

contract for deed vendee, licensor, licensee, or occupant.

3. An "*agricultural chemical*" is a pesticide as defined in Minn. Stat. Chapter 18B or a fertilizer, plant amendment or soil amendment as defined in Minn. Stat. Chapter 18C.

Other Notes

Persons who store or transport agricultural chemicals are construed as being "*in control of*" or having a "*responsibility for*" that substance, and therefore are required to report incidents, regardless of ownership.

Owners of property where an agricultural chemical has been spilled, leaked, or disposed of in the past are required to report to MDA contamination on their property upon discovery. Sometimes a fire or police department responding to an incident will report the event to MDA. A report from a fire or police department, or anyone else, **does not** relieve you of **your** obligation to report the incident to MDA.

Attachment 4

Sample Operator Agreement

PUBLIC AIRPORT

AERIAL APPLICATION OPERATION AGREEMENT

Date: _____

Name: _____

Company: _____

Address: _____

Phone Number: _____

Aircraft N-Number: _____

Hired By: _____

Effective Dates of Operation: _____

All requesting pilots must submit all documentation necessary to legally conduct aerial applications off the public airport. The following items must be submitted with this agreement:

- Minnesota Department of Agriculture Commercial Pesticide License
- Minnesota Department of Transportation Commercial License
- Proof of liability insurance on all aircraft (The minimum insurance coverage for each aircraft shall be the following types and amounts: \$100,000 per person and \$300,000 per occurrence for bodily injury and \$100,000 for property damage. Airport named as additional insured.)
- Proof of liability insurance on all trucks and equipment
- Site-specific Chemical Storage Plan and Material Data Safety Sheet for all chemicals stored on the airport property for more than 24 hours
- Site-specific Incident Response Plan

Requesting pilots hereby certify possession of the following current documents:

- FAA Operating Certificate
- Commercial Pilot's License
- Current Pilot Medical Certificate
- Bi-Annual Log Entries
- Current Aircraft Registration and Air Worthiness Certificate with Annual Inspection

The operating agreement must be completed and submitted to the public airport manager at least 48 hours prior to operations. Transient permits shall not exceed 60 (sixty) days without authorization from the public airport manager.

PUBLIC AIRPORT RULES AND REGULATIONS

“Operator” is defined as anyone possessing a Minnesota Commercial Pesticide Applicator License and engaged in the activities of chemical storage, mixing, and/or aerial application.

1. No persons or vehicles are allowed on the runway(s) or taxiway(s). Operators will use storage, water sources, and operation areas as designated by Public Airport Manager.
2. Operators must obey all security regulations including using proper access points, closing gates and doors, and securing aircraft, equipment, and storage containers.
3. The arrival and departure building may not be used as the operator’s place of business to conduct meetings with clients. Operator and employees may use the arrival and departure building (e.g., bathrooms, vending machines, phone) but must keep said building clean and orderly.
4. Operator is responsible for spills, chemical theft, damages, and any injury caused by chemicals and normal operation of aerial application while conducting business at Public Airport.
5. Operator shall notify Public Airport Manager immediately of any spills, injuries, vandalism, incidents, or accidents.
6. Operator shall not dump, rinse, or pour chemicals on the airport grounds.
7. Operator must abide by Public Airport’s fueling rules and regulations.
8. Operator shall abide by all rules and regulations set by the Federal Aviation Administration (FAA), Environmental Protection Agency (EPA), Food and Drug Administration (FDA), Occupational Safety and Health Administration (OSHA), Minnesota Department of Agriculture (MDA), Minnesota Department of Transportation (MN/DOT), and all other pertinent regulations.
9. Public Airport may secure bond to ensure proper operations, damage control, and clean-up responsibilities are met prior to departure.
10. Prior to departing the airport premises, Operator shall notify Public Airport Manager that operations are terminated.

PUBLIC AIRPORT

By: _____

Its: _____

STATE OF MINNESOTA)

COUNTY OF _____)

On this _____ day of _____, (year), before me, a notary public within and for the said county and state, personally appeared _____, known to me to be _____ of the Public Airport, party of the first part, identified herein, and who executed the above and foregoing instrument, and who acknowledged to me that he/she had the authority to execute the same on behalf of the Public Airport in the capacity set forth herein.

Notary Public
County, Minnesota
My Commission Expires: _____

OPERATOR

By: _____

Its: _____

STATE OF MINNESOTA)

COUNTY OF _____)

On this _____ day of _____, (year), before me, a notary public within and for the said county and state, personally appeared _____, known to me to be _____, party of the second part, identified herein in Operator, and who executed the above and foregoing instrument, and who acknowledged to me that he/she had the authority to execute the same on behalf of _____ in the capacity set forth herein.

Notary Public
County, Minnesota
My Commission Expires: _____

