

WORK AND SAFETY PLAN

Cooperative STS Gypsy Moth Project For Indiana - 2020

This Work and Safety Plan covers the

- Gypsy Moth Slow The Spread (STS) cooperative treatment project, which is represented by an Environmental Assessment document, Decision Notice & Finding of No Significant Impact (FONSI) document, Economic Analysis and Analysis of Gypsy Moth Populations for each project. **Yellow** highlighted Text is Contractor responsibility. **Green** highlighted text is DNR responsibility. **Light blue** highlighted text is mutual responsibility.

1.0 Personnel / Organization

This project is conducted by the Indiana Department of Natural Resources (Division of Entomology and Plant Pathology and the Division of Forestry) with cooperation from the USDA, Forest Service.

- 1.1 STATE ENTOMOLOGIST - Overall responsibility for the project under Indiana law with authority to initiate and stop the project at any time.
- 1.2 STATE FORESTER - Provides cooperation with the State Entomologist and USDA - Forest Service to conduct the project.
- 1.3 OPERATIONS BASE COORDINATOR (mating disruption) - Coordinates activities of treatment site observers; maintains radio contact with contractor and treatment site observers; approves start of application to the treatment site and release of the pilot to go to the next treatment site and records all activities of the treatment site.
- 1.4 CENTRAL COMMUNICATIONS OFFICER - Receives and responds to phone calls from the 800 number; maintains conference call to treatment site observers, treatment site coordinators and load site observer; monitors weather radars; maintains call list of people requesting notification for health reasons; coordinates with Division of Communications for press releases.
- 1.5 CONTRACTOR - Responsible to know and meet all state and federal regulations regarding treatment material use and aerial application; comply with specifications of the contract; to provide a safety plan for spills and safety equipment for his employees; to provide security for aircraft and treatment materials, and to conduct pre application safety meeting and fly-over of the site.
- 1.6 FOREST HEALTH SPECIALIST - Provides supervision of the project; prepares and reviews the environmental assessment; assists with public meetings; prepares and assists with treatment and contract; assists with biological evaluation; and coordinates and

administers work and safety plan.

- 1.7 LOAD SITE OBSERVER - Observes and records mixing and loading of treatment material; performs check of treatment equipment on aircraft for compliance with contract specifications; records amount of treatment material loaded and remaining after application; views digital application files for accuracy of application & advise applicator of any errors or problems; records other data on aircraft and pilot conducting each application; and coordinates project communications among treatment site observers, treatment site coordinators and other staff involved in the treatment. Also serves as Treatment Site Coordinator when project is considered small and duties can be combined.
- 1.8 TREATMENT SITE COORDINATOR - Conducts activities of treatment site observer; coordinates activities of treatment site observers; maintains radio contact with contractor and observers; approves start of application to the treatment site and release of the pilot to go to the next treatment site and records all activities of the treatment site. Serves as load Site Observer when project is considered small and duties can be combined.
- 1.9 TREATMENT SITE OBSERVER - Monitors aerial application of treatment material from the ground; observes aircraft for proper operation of treatment equipment; documents and reports defective nozzle operation; sets and retrieves spray deposit cards(if used) or monitors vehicles and other objects for spray deposition; records weather information (temperature, humidity and wind speed) and foliage expansion; records start and completion time of application; maintains radio contact with applicator; and communicates to people within treatment site.
- 2.0 NURSERY INSPECTORS AND COMPLIANCE OFFICERS - Provides supervision of the project in conjunction with the Forest Health Specialist; conducts and assists with public meetings and public notification; assists and conducts biological evaluation; prepares treatment boundaries; provides GIS support for the project; conducts pre treatment assessments for boundaries and aerial safety concerns; assists with work and safety plan; conducts treatments serving as treatment site observer and/or treatment site coordinator; prepares and reviews environmental assessment; monitors treatment progress; answers phone calls and monitors weather radar.

The State Entomologist is responsible for administering the treatment project and this work and safety plan. The use of 'state agent' in this plan refers to the personnel listed above.

2.0 Treatment Areas

The Indiana Department of Natural Resources (IDNR), Division of Entomology & Plant Pathology and Division of Forestry, proposes a cooperative project with the United States Department of Agriculture (USDA), Forest Service (USFS) to treat the gypsy moth populations at four sites in three counties that cover an estimated 8,863 acres (Table 1 below and maps in Appendix B). The preferred alternative for the cooperative STS project is Alternative 4: Btk and/or mating disruption.

Table 1. Number of Treatment Sites and Acres by County and Treatment Method for 2020.

COUNTY	TREATMENT SITES		TREATMENT ACRES	
	Mating Disruption	Btk	Mating Disruption	Btk
Huntington	1	1	7,243	734
Marshall	1	0	616	0
Porter	0	1	0	270
By Treatment	2	2	7,859	1,004
Total	4		8,863	

2.1 Description of the Proposed Treatment Sites

Huntington County

Huntington County is approximately 248,141 acres. 7,977 acres are in the proposed treatment sites. Thus a small portion of the county is proposed for treatment. Within the treatment sites, the tree canopy is estimated to be 70% in the Btk core area and 35% in the larger mating disruption area. The tree canopy acreage is the target for treatment.

Huntington MD 20:

The proposed treatment site contains 7,243 acres. The site is composed of trees associated with rural residences, rural suburbs, woodlots and a nature preserve. Oak, hickory, maple, tulip poplar, beech, cherry, pine, spruce and other hardwoods and shrubs are present. There are no schools within the site. Houses and businesses occur within the site. Churches and the Norwood Golf Course are within the site. Ponds and Clear Creek occur within the site. There is Acres Land Trust property (Pehkokia Woods) and also Izaak Walton League property in the southeastern portion of the site. Two locations of beehives registered on Driftwatch occur within a ¼ mile outside of the site boundary. Two water towers and two cell phone towers occur within the site or within a ¼ mile of the site boundary. This site was detected in 2009. The site was part of the 2010 Lagro-1 and Lagro-2 mating disruption treatment. One egg mass was detected in 2019 within this proposed site and a separate core treatment area with Btk is proposed for that smaller area of 734 acres, within this 7,243 acre site. Survey indicates a very low gypsy moth

population for this site, and mating disruption is proposed for 2020.

Huntington Btk 20:

The proposed treatment site contains 734 acres. The site is composed of trees associated with rural residences, woodlots and a nature preserve. Oak, hickory, maple, tulip poplar, beech, cherry, pine, spruce and other hardwoods and shrubs are present. There are no schools within the site. Houses, businesses and churches occur within the site. Ponds and Clear Creek occur within the site. There is Acres Land Trust property (Pehkokia Woods) and also Izaak Walton League property in the southeastern portion of the site. Two locations of beehives registered on Driftwatch occur within a ½ mile outside of the site boundary. Two water towers and one cell phone tower occur within the site or within a ¼ mile of the site boundary. This site has had no prior treatment. One egg mass was detected in 2019 within this proposed site. Survey indicates a low gypsy moth population for this site, and Btk is proposed for 2020.

Marshall County

Marshall County is approximately 288,000 acres. 616 acres are in the proposed treatment site. Thus a small portion of the counties is proposed for treatment. Within the treatment site, the tree canopy is estimated to be 48% of the individual treatment site and is the target for treatment.

Green Twp MD 20:

The proposed treatment site contains 616 acres. The site is composed of trees associated with rural residences, woodlots and classified forests. Oak, white pine, white cedar, maple, sassafras and other hardwoods and shrubs are present. No schools are within the site. Houses occur within the site. Several ponds and associated wetlands occur within the site. A private airstrip occurs 1.2 miles west/northwest of the site. This site was detected in 2016. A Btk treatment was conducted to the northwest of this site in 2017. This site was also part of the 2018 Green Twp mating disruption site. No egg masses were detected in the site in 2019. Survey indicates a very low gypsy moth population, and mating disruption is proposed for this site in 2020.

Porter County

This county is approximately 334,080 acres and 270 acres are in the proposed treatment site. Thus a small portion of the county is proposed for treatment. Within the treatment site, the tree canopy is estimated to be 25% of the individual treatment site and is the target for treatment.

Westville Btk 20: The proposed treatment site contains 270 acres. The site is composed of trees associated with rural residences and woodlots. White oak, red oak, maple, black cherry, walnut and other hardwoods and shrubs are present. Houses and businesses are within the site. No schools occur within the site. Ponds occur within the site. Moraine Nature Preserve is just outside the site boundary to the southeast. There is a high power line

that runs along the southeast corner of the site. The site was detected in 2010 and was part of the 350 East-1 mating disruption site and 350 East Btk site in 2011. The site was also part of the 2014 Westville mating disruption site. Three egg masses were detected in the site in 2019. Survey indicates a low gypsy moth population, and Btk is proposed for this site in 2020.

3.0 Pre-treatment Operation

3.1 Biological Monitoring

- A. Egg masses are monitored near or in the treatment site(s) to determine the date of egg hatch. This is used to aid in determining the time of first application for Btk and the time of male moth emergence for the application of mating disruption.
- B. Larvae observed in the sites will have their stage of development determined. When approximately 25-50% of the larvae are second instar, the first application of Btk is applied. The larval development will also be used to determine when pupation could occur, which will aid in determining the application time for mating disruption. For the Btk treatment sites, foliage expansion will be monitored so that an adequate target is available for the deposition of the Btk. Oak foliage will be used to guide foliage expansion. When expansion is near 50%, the first application will be applied. Other tree species in the project site will be monitored, also. Species such as sugar maple will also be used to determine the first application, especially if they are the major component of the overstory.
- C. The first application of Btk will be from late April through late May depending on weather. The earliest recorded male moth catch date and the above information will be used to determine the time for application of the mating disruption, which could be from mid-June through early July.

3.2 Calibration and Characterization

- A. Treatment equipment cleaned prior to application.
- B. For Btk, clean nozzles installed and the in line screen, clean and no finer than 30 mesh.
- C. Aircraft calibrated and characterized prior to application.
- D. Tanks, hoses and pump on treatment aircraft checked for leaks before the treatment material is loaded.
- E. The swath width used during application is determined in consultation with the state entomologist and USDA Forest Service using the swath width defined from characterization.
- F. Contractor will upload the most recent and correct GIS files of the treatment sites into the aircraft navigation system and verify that the navigation system will accurately guide the treatment applications.
- G. An aircraft safety check at time of calibration and characterization and at the time of loading for each application.
- H. Testing and designation of radio frequencies for ground to air communication at pretreatment meetings and confirmed at the time of loading for the application.

- I. Mating disruption calibration records are maintained by USFS under their contracting and treatment requirements. DNR will maintain calibration records for Btk applications.

3.3 Pre-treatment Training

A. Contractor:

1. The contractor will view the treatment site from the ground and/or air prior to the application with an agent of the State Entomologist to familiarize the contractor with the boundaries, hazards and other safety concerns.
2. The contractor will provide a spill plan.
3. Review and record the following information provided by the contractor to the State Entomologist:
 - a) Nozzle type/number and number of nozzle per aircraft for Btk
 - b) Swath width
 - c) Gallon per minute for Btk
 - d) PSI for Btk
 - e) Height at which treatment area will be conducted
 - f) Air speed during application
 - g) Pilot name and license # (FAA & Pesticide), years of experience
 - h) Aircraft type/model/number (FAA)
 - i) Treatment materials applied through treatment equipment just prior to this project for Btk

B. Observers:

1. Familiarize observers with treatment site boundaries, hazards, school bus schedules, hospitals with helipads, and other safety concerns.
2. Instruct observers in placement and retrieval of spray deposit cards for Btk (if used).
3. Instruct observers in radio and all phone operation and communication procedures.
4. Instruct observers in the use of monitoring procedures and equipment - temperature/humidity meter, wind meter and foliage expansion measure.
5. Instruct observers on procedures for an emergency.

4.0 Treatment Operations

4.1 Communications

A. All project personnel

1. A mandatory safety and coordination meeting will be held at the base of operations before applications begin. If the base of operations moves, a meeting will be held at the new base of operations.

B. Aircraft pilot to treatment site

1. The contractor provides radios for DNR employees to communicate with the pilot. Or, the contractor installs the DNR radio frequency or radio into the aircraft. Or, the contractor meets communication requirements of the USDA Forest Service for

- the application of mating disruption and Btk.
2. Radio communication is established at each treatment site between the pilot and treatment site observer or treatment site observer/coordinator.
 3. The pilot and/or load observer will notify the treatment site coordinator after loading is complete before heading to the treatment site for Btk treatments. For mating disruption treatments the pilot and/or operations base coordinator will notify the treatment site coordinator when the loading is complete and the pilot is headed to the treatment site.
 4. Radio communication is used:
 - a) to give contractor clearance to start application at the treatment site;
 - b) to communicate malfunctioning treatment equipment;
 - c) to communicate start and stop points for flight lines;
 - d) to communicate any skips or misses;
 - e) to communicate any hazards, safety concerns or other problems within the treatment site;
 - f) to communicate potential hazards from other aircraft entering the treatment site and locations of hospitals with emergency helicopter service;
 - g) to stop application for safety and weather condition reasons;
 - h) to release pilot and aircraft to move to the next site.
 - i) to report emergencies to the operations base.
- C. Between treatment sites
1. Radios and cellular phones will be used to notify each treatment site of: 1) the application progress, 2) when the aircraft is moving to the next site, 3) when the application is completed and, 4) any safety concerns and emergency situations.
 2. Cellular phones will be used to communicate to local emergency service agencies.
- D. Central communications officer**
1. One person will be assigned to take phone calls at a central phone number for the project and to keep in communication with ground observers.

4.2 Treatment Schedule and Constraints

- A. Refer to Section 3.1 - Biological Monitoring for the time of application.
- B. Second application (if applicable as per project preferred alternative for the site) of Btk is made no sooner than four days after the first application.
- C. Start date will be determined by the State Entomologist and the contractor given a minimum of 48 hours notice before first application.
- D. First application of Btk will be made when 25-50% of the gypsy moth larva are 2nd instar size. This is estimated to be between late April and late May.
- E. For mating disruption, application will be made 1-2 weeks prior to historical date of first male moth catch from detection surveys. This is estimated to be between mid-June and early July.
- F. Applications will be made under the supervision and authority of the State Entomologist or delegated agent in coordination with the USDA Forest Service and USDA APHIS.
- G. The State Entomologist or **treatment site coordinator (for Btk treatments)** or operations base coordinator or **treatment site coordinator (for mating disruption**

- treatments) must be present at the time of each application and will give the order to stop, start or alter application.
- H. Application will start after dawn, as stated by the National Weather Service, and continue until completed or when weather conditions and safety concerns are no longer acceptable for the safe operation of the treatment. Application would restart on the same day should weather conditions and safety concerns return to acceptable levels for a safe operation.
 - I. Application will stop when wind speeds exceed 10 mph or cause the treatment to drift off the project location.
 - J. Application of Btk will be suspended when school buses are in the site and when children are outside on school grounds. The State Entomologist or delegated agent will contact the local school district for bus schedules at the project site and inform the vendor when treatment will stop.
 - K. Treatment of Btk will be done when weather reports indicate there will be no rain for a minimum of 24 hours, preferably 48 hours. However, depending on weather patterns and development of larva and foliage, a 6-hour minimum period of no rain will be used as determined by the State Entomologist or delegated agent to allow application.
 - L. Low relative humidity below 50% and high temperature above 80 F may stop Btk application. Treatment may continue at temperatures above 80 F if there are no thermal inversions.
 - M. Treatment of mating disruption will be done when weather reports indicate there will be no threat of rain within one hour after treatment.

4.3 Pilot Briefing

- A. Review Section 3.3 A. – Pre-treatment Training with Contractor
- B. Treatment Site Coordinator or Load Site Observer shall –
 - 1. Update pilot on any changes in treatment site boundaries, hazards, or other safety concerns.
 - 2. Ensure navigation system and treatment file is properly linked.
 - 3. Check treatment file in the navigation system to ensure the file is the most recent version and contains the correct treatment boundaries should there be any changes in boundaries to mitigate issues regarding the treatment sites.
 - 4. Review treatment application at end of application or end of day.

4.4 Mixing and Loading

- A. Btk will be applied undiluted, as per the label or recommendations of the manufacturer. The rate is between 24 to 38 BIU/acre.
- B. The mating disruption will be applied per the label, the recommendations of the manufacturer or the recommendation of the USDA Forest Service. The rate is 6 or 15 grams AI/acre unless amended by manufacturer or USDA Forest Service.
- C. The treatment material will be mixed according to the label directions, if required.
- D. Mixing and loading shall occur under the supervision of the State Entomologist or delegated agent. The State Entomologist and the contractor will mutually agree upon

- the site(s) for loading and mixing.** The site(s) shall be located in proximity to the treatment site(s).
- E. Excess treatment material from each application shall be disposed of according to the label and all state and federal safety guidelines by the vendor.
 5. The **contractor** provides equipment for mixing, loading.
 6. **Contractor** is responsible for cleaning up treatment material and fuel spills.
 7. **Contractor** provides a safety plan for spills.
 8. **Contractor** maintains all required records as specified in the project contract.
 9. **Contractor** provides safety clothes and equipment for the contractor's employees.
 10. **Contractor** provides the following in written form for each application:
 1. Nozzle type/number and number of nozzle per aircraft.
 2. Swath width.
 3. Gallon per minute.
 4. PSI.
 5. Height at which treatment will be conducted
 6. Air speed during application.
 7. Pilot name and license # (FAA & Pesticide), years of experience.
 8. Aircraft type/model/number (FAA).
 9. Treatment materials applied through sprayer just prior to this project.
 11. The **load site observer** will record information about mixing and loading including:
 1. amount of treatment material loaded,
 2. amount of treatment material remaining upon completion,
 3. amount and type of sticker loaded.
 12. The **load site observer** will inspect the treatment equipment to ensure that:
 1. the treatment equipment is clean,
 2. new and clean nozzles are installed,
 3. the in line screen is clean and no finer than 30 mesh,
 4. tanks, hoses and pump on treatment aircraft are checked for leaks,
 5. and the treatment equipment is operating properly.
 13. The **load site observer** tests radio communication between the ground and air.

4.5 **Application Monitoring**

- A. **Treatment site observer** will record and monitor the following during application:
 1. temperature
 2. relative humidity
 3. wind speed.
- B. Treatment site observer will set and recover spray deposit cards, if utilized for a treatment site.
- C. Treatment site observer will observe treatment emitting from aircraft. The pilot will be notified and treatment will be halted if the pattern and coverage are off target.
- D. Treatment site observer will observe flight path, start/stop points for application, note

- any problems or deviations and advise pilot, treatment site coordinator and load site observer of the problems or deviations.
- E. For Btk treatments, treatment site observers will monitor for drones and other aerial safety hazards and notify the pilot and central communications officer immediately if hazards enter the treatment area. For mating disruption treatments, the treatment site observers will notify the pilot and base operations coordinator.
 - F. Treatment site coordinator will approve start of application to the site and release of the pilot to go to the next site.
 - G. Treatment site observers will visually verify that the proper boundaries are used (See Section 3.3 B. - Pre-treatment Training for Observers).
 - H. **Load site observer** will receive digital files that record treatment application from the applicator (see Section 1.8 – Load site observer) at the end of each treatment day or when a treatment is completed. Load site observer will view digital files for accuracy of application and advise applicator of any errors or problems.
 - I. After applications are conducted the State Entomologist or Central Communications Officer will report acreages completed and other required information to the National Pest Suppression Tracking System.

5.0 Public Notification

- 5.1 Residences in the treatment sites will be notified of the decision to proceed with the project approximately two weeks before the planned treatment by direct mail. The residences and the public will also be notified approximately **two weeks** before the planned treatment by using news releases via local newspapers and radio/TV stations.
- 5.2 The media will be notified approximately two days before the planned date of treatment and asked to provide information on the treatment and the treatment date to the public. Media, including social media outreach, will be utilized to the best means possible to notify the public of changes in the planned treatment date when adverse weather conditions arise and the planned treatment date has to be changed.
- 5.3 Local emergency agencies (including hospitals with helipad transport services) and other private helipads and airports will be notified of the project contacts and planned treatment date and time.
- 5.4 Offices of county/municipal officials (extension agents, mayor, etc.) will be notified of the project contacts and planned treatment date and time.
- 5.5 Notification will contain information pertinent to the specific treatment, treatment schedule, and precautions to be taken.

6.0 Security

- 6.1 Treatment Product
 - A. The State will require a certificate of analysis from the manufacturer prior to application.

- B. The manufacturer will provide a chain of custody document to the contractor upon delivery of the product.
- C. The manufacturer provides factory seals at the point of origin.
- D. The contractor will retain the chain of custody document and provide it to the State agent prior to application.
- E. The contractor must notify the State agent when the product has arrived and is in his/her custody.
- F. Upon delivery the contractor must provide a storage facility for the product that is locked and secured.
- G. A State agent will inspect the product within 24 hours of notification that the contractor has received the product.
- H. Upon notification that the contractor has received the product, the State agent shall notify responsible security officials (police, sheriff and/or conservation officers) where the product is located and request the location be monitored periodically until the treatment project has been officially completed.

6.2 Aircraft Security

- A. The aircraft will be secured in a hanger or disabled when not in use.
- B. The spray equipment – hoppers, tanks, pumps, hoses and mixing equipment – will be secured in a hanger or sealed at the end of each workday.
- C. The airport facility will be monitored periodically until the treatment project has been officially completed.

6.3 Pilot

- A. The pilot must have FAA approval for restricted areas.

6.4 Airport Security

- A. Access to the airport loading and storage areas will be restricted.
- B. Identification will be required for access to airport loading and storage areas, and other operation sites.

7.0 Safety

7.1 Handling of Treatment Material

- A. Contractor will provide protective clothing for his employees.

7.2 Accidental Spill

- A. The contractor will provide a spill plan and safety equipment for the loading/mixing of the treatment material, for fueling the aircraft and for spills that occur during the treatment.
- B. This spill plan will be followed in case of an accidental spill.
- C. The contractor is responsible for clean up and disposal of any treatment spills.
- D. In the event a spill does occur or pilot has to dump the treatment material, the following will be notified:
 - Safety Officer of the DNR: (Richard Edwards) 317-232-4145
 - State Chemist Office: 765-494-1492
 - State Police: 911 or site specific emergency numbers

- IN Department of Environmental Management Spill Line: 888-233-7745
- Local authorities: police, fire department, hospitals (site specific emergency numbers)
- CHEMTREC (Chemical Transportation Emergency Center): 800-424-9300
- National Response Center (if spill occurs on a highway): 800-424-8802
- USDA, Forest Service, Eastern Region:
(Marc Roberts) 612-295-4076 or if unavailable call
(Robert Madill) 414-297-3744/414-207-2224

(SEE: PESTICIDE SPILL CALLING SHEET, PAGE 16)

The Indiana Department of Environmental Management Emergency Response Section (888-233-7745) Pursuant to 327 IAC 2-6.1-7 (4), narrative and written spill reports must include the following information:

- product name/description
- date and time of spill
- cause of spill
- spill location; please include site specific map with address and zip code.
- description of area affected, mention square feet or cubic feet
- amount spilled
- amount recovered
- containment and cleanup activities (with dates)
- disposal of recovered material
- who was at the scene; name, organization, position
- do you have a contingency plan; if so, was it implemented
- list preventive measures to eliminate recurrence
- respondent's signature and position with company
- in your correspondence, please refer to Incident No.

7.3 National Pollutant Discharge Elimination System Incident Reporting Requirements

Adverse Incidents to be Reported to the Indiana Department of Environmental Management (IDEM)

All persons covered by the Indiana General Permit for Pesticide Applications (Permit ING870000) must monitor for, identify, and report adverse incidents. If a person covered by this general permit observes or is otherwise made aware of an adverse incident that may have resulted from a discharge from the pesticide application, the person must notify IDEM by telephone at (888) 233-7745.

- Immediately for incidents which pose a significant danger to human health or the environment,
- As soon as possible but within two (2) hours of discovery for any adverse incidents resulting in death or acute injury or illness to animals or humans (see 327 IAC 2-6.1), and
- Within 24 hours of the person becoming aware of the adverse incident for any other adverse incidents not listed above.

Such adverse incident reports to IDEM must include the following information:

- The caller's name and telephone number;
- Operator name and mailing address;
- If covered under a notice of intent, the NPDES tracking number;
- The name and telephone number of a contact person, if different than the person providing the 24-hour notice;
- How and when the person became aware of the adverse incident;
- Description of the location of the adverse incident;
- Description of the adverse incident identified and the EPA pesticide registration number for each product the person applied in the area of the adverse incident; and
- Description of any steps the person has taken or will take to correct, repair, remedy, clean up, or otherwise address any adverse effects.

Written Reports of Adverse Incidents to IDEM

Within 5 days of reporting an adverse incident, the person covered by the pesticide general permit must provide a written report of the adverse incident to the department which includes the following information:

- A. Information required to be provided above;
- B. Date and time the person notified IDEM of the adverse incident, who the person spoke with, and any instructions the person received from IDEM;
- C. Location of incident, including the names of any waters affected and appearance of those waters (sheen, color, clarity, etc);
- D. A description of the circumstances of the adverse incident including species affected, estimated number of individual and approximate size of dead or distressed organisms;
- E. Magnitude and scope of the affected area (e.g. aquatic square area or total stream distance affected)
- F. Pesticide application rate, intended use site (e.g., banks, above, or direct to water), method of application, and name of pesticide product, description of pesticide ingredients, and EPA registration number;
- G. Description of the habitat and the circumstances under which the adverse incident occurred (including any available ambient water data for pesticides applied:
- H. If laboratory tests were performed, indicate what test(s) were performed, and when, and provide a summary of the test results within 5 days after they become available;
- I. If applicable, explain why the person believes the adverse incident could not have been caused by exposure to the pesticide;
- J. Actions to be taken to prevent recurrence of adverse incidents; and
- K. Signed and dated in accordance with 327 IAC 5-2-22.

The person must report adverse incidents even for those instances when the pesticide labeling states that adverse effects may occur.

Adverse Incident Reporting For Federally listed Threatened or Endangered Species

If a person becomes aware of an adverse incident to a federally listed threatened or endangered species or its federally designated critical habitat, that may have resulted from a discharge from the pesticide application, the person must immediately notify the National Marine Fisheries Service Northeast Regional Office (NMFS) at **978-281-9300** in the case of an anadromous or marine species, or the U.S. Fish and Wildlife Service (FWS) Indianapolis Law Enforcement Office at **317-346-7014** in the case of a terrestrial or freshwater species.

This notification must be made by telephone immediately upon becoming aware of the adverse incident and must include the following information:

- A. The caller's name and telephone number;
- B. Operator name and mailing address;
- C. The name of the affected species;
- D. How and when the person became aware of the adverse incident;
- E. Description of the location of the adverse incident;
- F. Description of the adverse incident, including the EPA pesticide registration number for each product the person applied in the area of the adverse incident; and
- G. Description of any steps the person has taken or will take to alleviate the adverse impact to the species.

Adverse Incident Reporting for State-Listed Rare, Threatened or Endangered Species

If a person becomes aware of an adverse incident to a state-listed rare, threatened or endangered species or its critical habitat that may have resulted from a discharge from the pesticide application, the person must immediately notify the Indiana Department of Natural Resources at **317-232-4200**. This notification must be made by telephone immediately upon becoming aware of the adverse incident and must include the information required in the previous section.

7.4 **Safety Training**

Safety training will be incorporated into the pretreatment training for treatment site and load site observers and other personnel. The Work and Safety Plan will be reviewed at the time of application. Individuals will review emergency procedures, phone numbers, the communication procedure, the location of emergency equipment, and the monitoring procedure.

7.5 **Aviation Accident**

In the event of an accident, the **treatment site observer or other project personnel** will notify the State Police, 911 services if available in project area, county/municipal police, fire department, hospital and EMS for emergency situations. Also notified will be those listed under accidental spill. Project personnel will assist in the emergency situation as needed. **DO NOT DELAY NOTIFICATION TO EMERGENCY SERVICES.**
(SEE: OVERDUE AIRCRAFT, CRASHED AIRCRAFT OFF AIRPORT,

CRASHED AIRCRAFT AT AIRPORT CALL LISTS AND AIRCRAFT ACCIDENT CHECKLIST AND OTHER INSTRUCTIONS, PAGES 19-24)

7.6 **Personal/Vehicular Incident**

In the event of a personal or vehicular incident, the **treatment site observer or other project personnel** will notify the State Police, 911 services if available in the project area, county/municipal police, fire department, hospital and EMS for emergency situations. Project personnel will assist in the emergency situation as needed. A report of the incident should be made using Indiana State Form 40141, "Report of Personal/Vehicular Incident". **DO NOT DELAY NOTIFICATION TO EMERGENCY SERVICES. (SEE: REPORT OF PERSONAL/VEHICULAR INCIDENT, PAGES 17 and 18)**

7.7 **Project Aviation Safety Plan**

This Indiana Work & Safety Plan is used in conjunction with the USDA, Forest Service Aviation Management Plan 2020 for the Mating Disruption Treatment Project.

All pesticide incidents and accident situations will be reported to the USFS using instructions from the Forest Service Handbook (FSH) 2109.14 Section 71.3. A written follow-up report should include:

1. Location of incident, such as State, county, National Forest, city section, township, range, and identifiable roads.
2. Ownership of property involved (if private property, give owner's name and address).
3. Tree species, plant, animal community, or structure treated.
4. Pest(s) involved.
5. Humans or domestic animals affected:
 - a) If humans were involved, obtain and attach a written statement from the attending physician.
 - b) If domestic animals were involved, obtain and attach a statement from the attending veterinarian.

PESTICIDE SPILL CALLING SHEET

In the event of a pesticide spill notify the following personnel:

1. Indiana DNR Safety Officer **Richard Edwards**
317-232-4145
2. Call State Chemist Office **765-494-1492**
3. Call State Police **See Site Specific Emergency Numbers**
(pages 38-41)
4. Call Department of Environmental
Management Spill Line **888-233-7745**
5. Notify Local Authorities (Police,
Fire, Hospital) if needed **See Site Specific Emergency Numbers**
(pages 38-41)
6. Notify CHEMTREC (Chemical Transportation
Emergency Center) **800-424-9300**
7. Notify National Response Center (If spill
occurs on highway) **800-424-8802**
8. Notify U S Forest Service **Marc Roberts**
(612) 295-4076



REPORT OF PERSONAL / VEHICULAR INCIDENT
State Form 40141 (R2 / 5-00)

INDIANA DEPARTMENT OF
NATURAL RESOURCES

INSTRUCTIONS: Within ten (10) days, the completed form (State Form 40141) will be distributed to the following:
 * 2 copies to the Director of Safety.
 (The Director of Safety will forward a copy to the Investigation Division, Attorney General.)
 * 1 copy to the DNR division representative involved in the accident
 * 1 copy to be retained by the originator.

PRIVACY NOTICE

This agency is requesting that you disclose your Social Security Number. You have the right to refuse, and will not be penalized for doing so.

TO: **ATTORNEY GENERAL'S OFFICE, INVESTIGATION DIVISION**
 FROM: (PROPERTY)
 VIA: (AGENCY / DIVISION)

NOTICE
 This report is prepared by and for State use. It shall not be published or disseminated to anyone without specific authorization from a representative of the office of the Attorney General of Indiana or a representative of the state agency with the authority to release said information.

TIME, PLACE AND ENVIRONMENT

State Employee Not a State Employee
 Date of Incident (Month, Day, Year) Incident Resulted In: Personal Injury Vehicle Damage
 Local Time A.M. P.M. Day of Week Exact Location of Accident Tort Claim Procedure Issued Yes No
WEATHER CONDITIONS: Clear Fog, Smoke Cloudy Other (Describe) Rain Snow Sleet / Hail Freezing Rain
LIGHT CONDITIONS: Daylight Dawn / Dusk Dark (No Street Lights) Dark (Street Lights On) Dark (Street Lights Off)
TYPE OF INCIDENT: Personal Injury Property Damage Fatality Vehicle Damage
PHOTO INCLUDED: Yes No
PROPERTY MAP INCLUDED: Yes No

INJURED PERSON

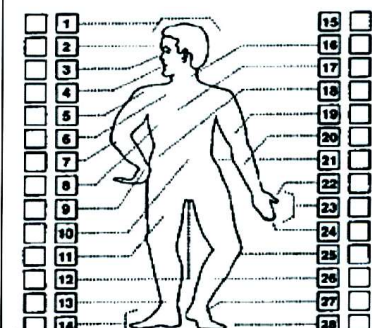
Name of Injured Person Telephone Number
 Address Date of Birth (Month, Day, Year)
 City, State and ZIP code Social Security Number ■

BODILY INJURY STATUS

Below is a numbered list indicating Area of Injury. In the box next to the numbers around the figure, show the type of injury that occurred; using the letter coding indicated under Type of Injury. This will give an over-all and precise picture of the nature of the injury.

Area of Injury

Head..... 1	Shoulder..... 5	Wrist..... 9	Ankle..... 13	Chest..... 17	Back..... 21	Knee..... 25
Face..... 2	Collarbone..... 6	Abdomen..... 10	Foot..... 14	Hip..... 18	Thumb..... 22	Lower leg..... 26
Eye..... 3	Elbow..... 7	Thigh..... 11	Skin..... 15	Upper arm..... 19	Hand..... 23	Instep..... 27
Tooth..... 4	Ribs..... 8	Groin..... 12	Neck..... 16	Forearm..... 20	Finger..... 24	Toe..... 28



Indicate skin areas affected!

Type of Injury

WOUNDS.....	Laceration..... A	BURN.....	Heat..... L
	Contusion..... B		Chemical..... M
	Infection..... C		Friction..... N
	Foreign Body..... D	SKIN.....	Dermatitis..... O
	Puncture..... E		Irritation, Rash... P
		FRACTURE.....	Q
		STRAIN.....	R
EYES.....	Foreign Body..... F	SPRAIN.....	S
	Burn, Corrosive... G	GASES.....	Nausea..... T
	Burn, Heat..... H		Dizziness..... U
	Burn, Flash..... I		Irritation..... V
Wound.....	J	PAINS.....	W
Irritation.....	K	MISCELLANEOUS.....	X

VICTIM STATUS Conscious Semi-conscious Unconscious Dead

Received First Aid Yes No
 If Yes, By Whom? _____

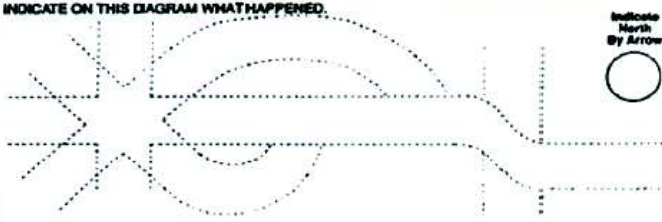


Refused Medical Treatment
 Ambulance: Name of Ambulance Service _____

DISPOSITION Went Home Went to Hospital Saw Physician

WITNESS

Name Telephone Number
 Address
 City, State and ZIP code Social Security Number ■

(over)

DESCRIPTION OF ACCIDENT											
Describe Briefly How the Accident Occurred: FACTS ONLY.											
LAW ENFORCEMENT											
Name of Investigating Officer						Badge / I.D. Number					
Department						Law Enforcement Called? <input type="checkbox"/> Yes <input type="checkbox"/> No If Yes, By Whom?					
OTHER REPORTS											
Indiana Operator's Accident Report <input type="checkbox"/> Yes <input type="checkbox"/> No						Investigative Officer's Report <input type="checkbox"/> Yes <input type="checkbox"/> No					
SIGNATURE											
<i>Authorized personnel shall complete and process this report without undue delay.</i>											
Report Prepared By:						Title			Date (Month, Day, Year)		
STATE 1						OTHER VEHICLE 2					
VEHICLE 1 <input type="checkbox"/> DRIVER 1 <input type="checkbox"/>						VEHICLE 2 <input type="checkbox"/> DRIVER 2 <input type="checkbox"/>					
Print Driver's Name (Last, First, MI)						Print Driver's Name (Last, First, MI)					
Address (Street, City, State, ZIP code)						Address (Street, City, State, ZIP code)					
Sex	Date of Birth (Month, Day, Year)		License Type			Sex	Date of Birth (Month, Day, Year)		License Type		
License State	Driver's License Number		Restrictions			License State	Driver's License Number		Restrictions		
Color	Veh. Yr.	Make	Model Name			Color	Veh. Yr.	Make	Model Name		
Veh. Type (Enter No.)	Lic. Yr.	License Plate No./Comm. No.		Lic. State	Veh. Type (Enter No.)	Lic. Yr.	License Plate No./Comm. No.		Lic. State		
Posted Speed Limit		Direction of Travel		No. of Occupants	Posted Speed Limit		Direction of Travel		No. of Occupants		
Fire? <input type="checkbox"/> Yes <input type="checkbox"/> No	Number of Axes		Towed? <input type="checkbox"/> Yes <input type="checkbox"/> No			Fire? <input type="checkbox"/> Yes <input type="checkbox"/> No	Number of Axes		Towed? <input type="checkbox"/> Yes <input type="checkbox"/> No		
Registered Owner's Name						Registered Owner's Name					
Address (Street, City, State, ZIP code)						Address (Street, City, State, ZIP code)					
DIAGRAM (Refer to Vehicles by Number)											
<p>INDICATE ON THIS DIAGRAM WHAT HAPPENED.</p>  <p>Indicate North By Arrow</p>						<p>INSTRUCTIONS</p> <ol style="list-style-type: none"> Follow dotted lines to draw outline of roadway at place of accident. Number each vehicle and show direction of travel by arrow. Use solid line to show path before accident; dotted line after accident. Show pedestrians by . Show railroad by . Show distance and direction to land marks; identify landmarks by name or number. Show traffic control. 					
<p>How did the accident happen, and in your opinion, what caused the accident? (Describe fully, using a separate sheet of paper if necessary.)</p>											
Was Accident Job Related? <input type="checkbox"/> Yes <input type="checkbox"/> No				Signature of Immediate Supervisor				Date (Month, Day, Year)			

OVERDUE AIRCRAFT CALL LIST

The Forest Service considers an aircraft overdue if the aircraft is 30 minutes overdue at its destination and cannot be located. At this point the following procedure should be initiated.

1. Obtain available information outlined in the Aircraft Accident Checklist.
2. Call Program Manager

Phil Marshall
(W) 812-358-9034
(C) 812-595-2740

Who will:

- a. Call the Air Force Rescue Coordination Center (AFRCC) at Tyndall AFB, FL **(800) 851-3051**
- b. Notify USFS Aviation Officer **Marc Roberts**
(612) 295-4076
 - Who Notifies Eastern Region Aviation Officer **Robert Madill**
(414) 297-3744 / (414) 207-2224
- c. Notify local law enforcement **Specific Site Emergency Numbers**
(pages 38-41)

CRASHED AIRCRAFT OFF AIRPORT CALL LIST

1. Rescue survivors - Render first aid.
2. Coordinate local crash/rescue, if available.
3. Complete actions in Aircraft Accident Instructions.
4. Fill out Aircraft Accident Checklist.
5. Call Program Manager

Phil Marshall
(W) 812-595-2740
(C) 812-595-2740

Who will:

- a. Notify USFS Aviation Officer

Marc Roberts
(612) 295-4076

- Who notifies Eastern Region
Aviation Officer (USFS)

Robert Madill
(414) 297-3744 / (414) 207-2224

- b. Notify local law enforcement

Specific Site Emergency Numbers
(pages 38-41)

CRASHED AIRCRAFT AT AIRPORT CALL LIST

1. Call local crash/rescue, if available. **911**
 2. Rescue survivors - render first aid.
 3. Evacuate injured.
 - a. Notify hospital, doctor **911**
 - b. Notify local law enforcement **911**
 4. Complete actions in Aircraft Accident Instructions.
 5. Fill out Aircraft Accident Checklist.
 6. Call Program Manager
Phil Marshall
(W) 812-358-9034
(C) 812-595-2740
- Who will:
- a. Notify USFS Aviation Officer **Marc Roberts**
(612) 295-4076
 - Who notifies Eastern Region
Aviation Officer (USFS) **Robert Madill**
(414) 297-3744 / (414) 207-2224
 - b. Notify local law enforcement **Specific Site Emergency Numbers**
(pages 38-41)

AIRCRAFT ACCIDENT CHECKLIST

(Do not delay emergency reporting calls by trying to fill in all the blanks)

1. Point of Contact Information (the person who will provide information and direct actions)		
a. Name	c. Duty Position:	
b. Phone Numbers		d. Address:
Work:	Cell:	
Fax:	Home:	e. E-mail:
2. Accident Information		
a. Aircraft Registration/Tail Number	Type of Aircraft	Color
b. Date and Time of Accident		
c. Location of Aircraft (Grid, Lat/Log, Reference to Known Point)		
d. Hazardous Materials Involved? (Explosives, Radioactive Materials, etc.)		
e. Witnesses identified and statements requested?		
f. Accident Site Secured?	Photos Taken?	
g. Flight Data Recorder Secured? (if applicable)	ELT Deactivated?	
h. Total Number of Personnel Involved		
Number of Fatalities	Number of Injuries	
3. Accident Description (type of mission, what happened, weather, extent of damage, etc.)		
4. Admin Information		
a. Aircraft Owner	b. Operator	
c. Pilot in Command		
d. Point of Last Departure	e. Destination	
f. Route of Flight	g. Fuel on Board	
h. Nearest Commercial Airport	i. Suitable Helicopter Landing Site	
j. Other		

AIRCRAFT RESCUE INSTRUCTIONS

At an aircraft crash site, the National Transportation Safety Board (NTSB), has officially stated and declared that all crash sites are considered contaminated and injuries inflicted from debris could be fatal, based on HIV and Hepatitis B research reports. It is very critical that these sites be handled with the utmost care from the time of the accident until properly clothed investigators arrive at the site. Make every effort to disturb the crash site as little as possible. The less disturbed the crash site remains, the easier it will be to investigate the cause.

Rescue

1. Do not become a victim by placing yourself in jeopardy. Use good judgment and assist survivors and render first aid **to the best of your abilities** until relieved by medical personnel.
2. If there is any danger of post crash fire, move survivors to a safe place.
3. Keep bystanders and unauthorized personnel away from crash site.
4. Establish “no smoking” rule. Fire and explosion are real dangers with residual fuels and hot metal.

Search the wreckage carefully for other survivors

Exercise good judgment and use appropriate personal protective equipment.

Hazards at an aircraft accident site can include:

1. **Biological Hazards:** HIV, Hepatitis B and others.
2. **Toxic Substances:** Fuel, oil, hydraulic fluid, and aircraft materials such as beryllium, lithium, chromium, and mercury.
3. **Pressure Vessels:** Hydraulic accumulators, struts, oxygen cylinders, and fire extinguishers.
4. **Mechanical Hazards:** Metal under tension (rotor blades bent under fuselage), heavy objects, composite materials, and sharp edges.
5. **Fire Hazards:** Unburned fuel, hot metal (or other materials), aircraft batteries, pyrotechnics, and the ignition of grass as a result of the accident.
6. **Environmental Hazards:** Weather, terrain, animals.

Notify the Program Manager

Preserve the accident site

The area to be quarantined shall not be less than 300 feet in diameter (length of football field) and encompasses the entire wreckage. Every piece of the aircraft and its location is important to the investigators. Nothing should be disturbed. If something must be disturbed in order to remove survivors or for fire suppression activities, document and/or photograph the location of any debris. Use local law enforcement to secure site. Treat the area as if it were a crime scene and provide 24 hour security until investigation team arrives.

Identify witnesses (critical element)

1. Obtain witness statements, if possible.
2. Collect names, addresses, and phone numbers

All US Department of Interior (DOI) and US Department of Agriculture Forest Service (USDA FS) aircraft mishaps are investigated under the authority of the NTSB as defined in:

1. 49 Code of Federal Regulations (CFR) parts 830 and 831
2. Public Law (PL) 103-411

This means that regardless of severity, all aircraft mishaps (accidents or incidents) are the domain of the NTSB. If NTSB elect not to visit the site and physical investigation is conducted by DOI or USDA FS personnel, it is still a NTSB investigation and investigative efforts must comply with their rules and regulations.



SAFETY DATA SHEET

1 of 10

Foray 76B Flowable Concentrate

SDS# VBC-0076 Revision 3

ISSUED 05/08/19

[Classification according to OSHA; 29 CFR § 1910.1200, (3/12/2012)]

1. IDENTIFICATION OF THE SUBSTANCE/PREPARATION AND OF THE COMPANY

1.1 Product Identifier

MATERIAL NAME: Foray 76B Flowable Concentrate

Synonyms: BioBit XLP, VBC-6431

EPA Reg No.: 73049-49

Code Number: 35530

List Number: 60176

Chemical Family: Microbial, Btk strain ABTS-351

Substance Registration Number(s)[REACH]: N/A

1.2 Relevant Identified Uses and Uses Advised Against

Identified Uses: Agricultural Insecticide

Uses Advised Against: It is a violation of Federal law to use this product in a manner inconsistent with its FIFRA pesticide labeling.

1.3 Details of the supplier of the Safety Data Sheet

Supplied By: Valent BioSciences LLC
870 Technology Way
Libertyville, Illinois 60048

1.4 EMERGENCY TELEPHONE NUMBERS

Emergency Health or Spill:

Outside the United States: 651-632-6184

Within the United States: 877-315-9819

2. HAZARDS IDENTIFICATION

2.1 Classification of the Substance or Mixture

Eye Irritation – Category 2B

2.2 Labeling Elements

Symbol(s)

None

Signal Word

WARNING

Hazard Statement(s)

Causes eye irritation

Precautionary Statement:

Prevention

Wash hands and face thoroughly after handling



SAFETY DATA SHEET

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Foray 76B Flowable Concentrate

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[Classification according to OSHA; 29 CFR § 1910.1200, (3/12/2012)]

Response

IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
If eye irritation persists: Get medical advice/attention.

Disposal

Dispose of contents/container in accordance with local/regional/national regulations.

2.3 Other Hazards

None identified.

3. COMPOSITION/INFORMATION ON INGREDIENTS

CAS #	Component Names	Percent
68038-71-1	Btk Fermentation solids	18.44
Trade Secret	Other ingredients	81.56

4. FIRST AID MEASURES

4.1 Description of First Aid Measures

GENERAL: In all cases of doubt, seek medical attention.

EYES: Remove from source of exposure. Flush with copious amounts of water. Remove contact lenses, if present and easy to do, after the first 5 minutes, then continue rinsing. If irritation persists or signs of toxicity occur, seek medical attention. Provide symptomatic /supportive care as necessary.

SKIN: Remove from source of exposure. Take off contaminated clothing. Flush with copious amounts of water. Cover irritated skin with an emollient. If irritation persists or signs of toxicity occur, seek medical attention. Provide symptomatic/supportive care as necessary.

INGESTION: Remove from source of exposure. Move person to fresh air. Do NOT induce vomiting. Give large quantities of water. If signs of toxicity occur, seek medical attention. Provide symptomatic /supportive care as necessary.

INHALATION: Remove from source of exposure. If signs of toxicity occur, seek medical attention. Provide symptomatic/supportive care as necessary. If person is not breathing, call 911, then give artificial respiration.

4.2 Most important Symptoms and Effects, both Acute and Delayed

Acute

Eye irritation



SAFETY DATA SHEET

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Foray 76B Flowable Concentrate

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[Classification according to OSHA; 29 CFR § 1910.1200, (3/12/2012)]

Delayed

No information on significant adverse effects

4.3 Indication of any Immediate Medical Attention and Special Treatment Needed

Treat symptomatically and supportively

5. FIRE FIGHTING PROCEDURES

5.1 Extinguisher Media

Suitable Extinguisher Media

Dry chemical, water spray, foam or carbon dioxide. Use appropriate medium for the underlying cause of the fire.

Unsuitable Extinguisher Media

None known

5.2 Specific Hazards Arising from the Chemical

None known

Thermal decomposition products

Carbon oxides, nitrogen oxides

5.3 Advice to Firefighters

Protective Equipment and precautions for firefighters

Fire fighter should wear full-face, self-contained breathing apparatus and protective clothing. Fire fighters should avoid inhaling combustion products. See Section 8 (Exposure Controls / Personal Protection)

Fire & Explosive hazard

Not expected to be flammable.

6. ACCIDENTAL RELEASE MEASURES

6.1 Personal Precautions, Protective Equipment and Emergency Procedures

Use in a well-ventilated area. Respiratory protection such as a dust mask should be worn during normal product use. Wear eye protection appropriate to handling activities. Wear gloves. Wear appropriate body coverings if contact may occur.

6.2 Environmental Precautions

Keep out of drains, sewers, ditches and waterways. Avoid runoff to waterways and sewers. Dispose of excess product and washwaters according to local regulations.



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Foray 76B Flowable Concentrate

SDS# VBC-0076 Revision 3

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[Classification according to OSHA; 29 CFR § 1910.1200, (3/12/2012)]

6.3 Methods and Materials for Containment and Cleaning Up

Ventilate area. Wear appropriate personal protective equipment. Recover product with inert material (earth, sand, vermiculite) and place into appropriate container for disposal. Do not flush to sewer.

6.4 Reference to Other Sections

See Section 7 for Handling Procedures. See Section 8 for Personal Protective Equipment recommendations. See Section 13 for Disposal Considerations.

7. HANDLING AND STORAGE

7.1 Precautions for Safe handling

Ventilate. Avoid contact with eyes, skin or clothing. Wash thoroughly after handling. Do not eat drink or smoke while working with product, obey reasonable safety precautions and practice good housekeeping. For filling operations respiratory protection may be recommended particularly in enclosed areas.

7.2 Conditions for Safe Storage, Including Incompatibilities

Protect against physical damage. Close containers of unused material. Store in a dry, cool, ventilated place, away from direct sunlight.

Incompatibilities

None Known

7.3 Specific End Use(s)

Agricultural insecticide.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

8.1 Control Parameters

Component Exposure Limits

None

Derived No Effect Levels (DNELs)

No DNELs available

Predicted No Effect Concentrations (PNECs)

No PNECs available

8.2 Exposure Controls

Appropriate Engineering Controls

Provide general ventilation. Where adequate general ventilation is unavailable use process enclosure, local exhaust ventilation, or other engineering controls



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Foray 76B Flowable Concentrate

SDS# VBC-0076 Revision 3

ISSUED 05/08/19

[Classification according to OSHA; 29 CFR § 1910.1200, (3/12/2012)]

SKIN PROTECTION:

Wear protective clothing, including boots and gloves. Wear gloves. Wash thoroughly with soap and water after handling.

EYE PROTECTION:

Wear goggles, safety glasses with side shields or full-face shield when splashing or spraying of materials is likely.

RESPIRATORY PROTECTION:

For filling operations if dust/mist is produced respiratory protection is recommended or where respiratory protection is warranted, use dust/mist filtering respirator (MSHA/NIOSH approved number prefix TC-21C or a NIOSH approved respirator with any N, P, R or HE filter). Wash thoroughly with soap and water after handling.

9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance:	Liquid, pale yellow	Odor:	Yeast like
pH:	4.3 ± 0.1 (10% dilution)	Odor Threshold:	Not determined
Melting Point:	Not Applicable	Boiling Point:	Not Determined
Specific Gravity:	Not Determined	Solubility (H ₂ O):	Not Determined
Octanol/H ₂ O Coeff:	Not Determined	Bulk Density:	1.1 ± 0.1 g/ml
Molecular Weight:	Not Applicable	Evaporation Rate:	Not Applicable
Auto Ignition:	Not Determined	Decomposition Temp.:	Not Determined
Flash Point:	Not Determined; Non-flammable	LFL:	Not Determined
Vapor Density:	Not Determined	UFL:	Not Determined
VOC:	Aqueous	Vapor Pressure:	Not Determined
Kinematic Viscosity:	Not Determined	Flammability Class:	Not flammable
Suspensibility	100%		

10. CHEMICAL STABILITY AND REACTIVITY

10.1 Reactivity

Material does not pose a significant reactivity hazard.

10.2 Chemical Stability

Stable under ordinary conditions of use and storage. Spontaneous reaction not possible.

10.3 Possibility of Hazardous Reactions

Does not undergo hazardous polymerization

10.4 Conditions to Avoid

None known



SAFETY DATA SHEET

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Foray 76B Flowable Concentrate

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[Classification according to OSHA; 29 CFR § 1910.1200, (3/12/2012)]

10.5 Incompatible Materials

None known

10.6 Hazardous Decomposition Products

Carbon oxides and unidentified organic compounds.

11. TOXICOLOGICAL INFORMATION

11.1 Information on Toxicological Effects

Likely Routes of Exposure

Inhalation: Yes

Eye Contact: Yes

Skin Contact: Yes

Ingestion: Not likely

Product (or TGA) where noted) Toxicology

Acute Effects

Oral Toxicity: LD₅₀ > 5,050 mg/kg (rat) [EPA Toxicity Category IV]

Dermal Toxicity: LD₅₀ > 2,000 mg/kg (rabbit)

Inhalation Toxicity: LC₅₀ rat (4 hours): > 3.22 mg/L

Corrosiveness: Not corrosive.

Dermal Irritation: Mildly-irritating, [EPA Toxicity Category IV]

Ocular Irritation: Mildly-irritating, (cleared by day-7)

Dermal Sensitization: Not a sensitizer (Lymph node mice)

Mutagenicity Information: Components of this product are not listed as mutagens.

Carcinogenicity Information: Components of this product are not listed as carcinogenic by NTP, IARC or OSHA.

Developmental/Reproductive Toxicity: This material is not teratogenic

Special Target Organ: Eye Irritation.

Aspiration Hazard: Not Applicable

Repeat Dose Studies: Not Applicable, Acute Toxicity testing was all negative

12. ECOLOGICAL INFORMATION

12.1 Ecotoxicity (Data for a Concentrated Technical Powder)

Do not allow into waterways or lakes.

Fish: LC₅₀ > 2.87 x 10⁷ cfu/L (96-H, Rainbow Trout)

Bird: LC₅₀ > 2857 mg/kg (5.7 x 10¹⁰ cfu/kg) each day for 5 days (Sub-Acute Oral (dietary) - Bobwhite Quail)

Invertebrates: EC₅₀ > 50 mg/L (48-Hr) (Daphnia)

21-day NOEC > 5.0 mg/L (Daphnia)



SAFETY DATA SHEET

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Foray 76B Flowable Concentrate

SDS# VBC-0076 Revision 3 [Classification according to OSHA: 29 CFR § 1910.1200, (3/12/2012)]	ISSUED 05/08/19
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Honeybee: Essentially Nontoxic to honeybee

12.2 Persistence and Degradability

No data available

12.3 Bioaccumulation potential

No data available

12.4 Mobility in Soil

No data available

12.5 Results of PBT and vPvB assessment

Assessments not performed

12.6 Other adverse effects

None known

13. DISPOSAL CONSIDERATIONS

13.1 Waste Disposal Methods

Dispose of product in accordance with federal, state, provincial, and local regulations. Prevent contamination of environment by wastes.

14. TRANSPORTATION INFORMATION

DOT STATUS: Not regulated by US DOT
UN PROPER SHIPPING NAME: N/A
REMARKS: N/A

IATA/ICAO STATUS: Not Regulated
PROPER SHIPPING NAME: N/A
REMARKS: N/A

IMDG STATUS: Not Regulated
PROPER SHIPPING NAME: N/A
REMARKS: N/A

15. REGULATORY INFORMATION

15.1 Safety, Health and Environmental Regulations / Specific Legislation

TSCA STATUS: Exempt
CERCLA STATUS: Not regulated as hazardous



SAFETY DATA SHEET

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Foray 76B Flowable Concentrate

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[Classification according to OSHA; 29 CFR § 1910.1200, (3/12/2012)]

SARA STATUS: Acute: No Chronic: No Fire: No CDT: No

RCRA STATUS: Not regulated as hazardous

State Right-To-Know: Not Listed

Consult applicable national, state provincial or local laws to determine regulations, laws or ordinances which may be applicable.

OSHA HAZARD COMMUNICATION STANDARD: Not defined by the OSHA Hazard Communication Standard, 29 CFR

15.2 EPA Pesticide Regulations

EPA Registration Number: 73049- 49

EPA Pesticide Label signal word: CAUTION

Product must have EPA Approved Pesticide Label attached to or accompanying all containers.

This chemical is a pesticide product registered by the United States Environmental Protection Agency and is subject to certain labeling requirements under federal pesticide law. These requirements differ from the classification criteria and hazard information required for safety data sheets (SDS), and for workplace labels of non-pesticide chemicals. The hazard information required on the pesticide label is reproduced below. The pesticide label also includes other important information, including directions and limitations for its use.

PRECAUTIONARY STATEMENTS HAZARDS TO HUMANS AND DOMESTIC ANIMALS

CAUTION

Harmful if absorbed through the skin. Causes moderate eye irritation. Avoid contact with skin, eyes, or clothing. Wash thoroughly with soap and water after handling. Remove and wash contaminated clothing before reuse.

Environmental Hazards

For Ground Application:

For Terrestrial Uses: Do not apply directly to water, or to areas where surface water is present or to intertidal areas below the mean high water mark.. Do not contaminate water when cleaning equipment or disposing of equipment washwaters.

No manual application can take place within 300 feet of any threatened or endangered Lepidoptera.

For Aerial Application:

Except under the forest canopy, do not apply directly to water, or to areas where surface water is present or to intertidal areas below the mean high water mark.. Do not contaminate water when cleaning equipment or disposing of equipment washwaters.

This product must not be applied aerially within ¼ mile of any habitats of threatened or endangered Lepidoptera.



SAFETY DATA SHEET

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Foray 76B Flowable Concentrate

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[Classification according to OSHA; 29 CFR § 1910.1200, (3/12/2012)]

STORAGE AND DISPOSAL

Do not contaminate water, food or feed by storage or disposal.

Pesticide Storage: Store in a cool, dry place. Keep containers tightly closed when not in use. Store in temperatures above freezing and below 25 degrees C (77 degrees F).

Pesticide Disposal: To avoid wastes, use all material in this container by application according to label directions. If wastes cannot be avoided, offer remaining product to a waste disposal facility or pesticide disposal program (often such programs are run by state or local governments or by industry).

Container Disposal: Nonrefillable container. Do not reuse or refill this container. Triple rinse container (or equivalent) promptly after emptying. Triple rinse as follows: empty the remaining contents into application equipment or a mix tank and drain for 10 seconds after the flow begins to drip. Fill the container ¼ full with water and recap. Shake for 10 seconds. Pour rinsate into application equipment or a mix tank or store rinsate for later use or disposal. Drain for 10 seconds after flow begins to drip. Repeat this procedure two more times. Once cleaned, offer container for recycling, if available. If recycling is not available, puncture and dispose of container in a sanitary landfill or by other procedures approved by state and local authorities.

16. OTHER INFORMATION

NFPA Hazard Ratings

Health: 1
Flammability: 0
Instability: 0

HMIS Hazard Ratings

Health: 1
Flammability: 0
Instability: 0

0 = Minimal
1 = Slight
2 = Moderate
3 = Serious
4 = Extreme

REASON FOR ISSUE: General update

APPROVAL DATE: 05/08/19

SUPERSEDES DATE: 04/03/17

LEGEND: N/A = Not Applicable

N/L = Not Listed

C = Ceiling

(R) = Registered Trademark of Valent BioSciences LLC

(TM) = Registered Trademark of Valent BioSciences LLC

N/D = Not Determined

L = Listed

S = Short-term

The information provided in this Safety Data Sheet (SDS) is provided in good faith and believed to be accurate at the time of preparation of the SDS. However, to the extent consistent with applicable law, Valent BioSciences LLC and its subsidiaries or affiliates extend no warranties, make no representations, and assume no responsibility as to the accuracy, suitability, or completeness of such information. Additionally, to the extent consistent with applicable law, neither Valent BioSciences LLC nor any of its subsidiaries or affiliates represents or guarantees that this information or product may be used without infringing the intellectual property rights of others. Except to the extent a particular use and particular information are expressly stated on the product label,



SAFETY DATA SHEET

10 of 10

Foray 76B Flowable Concentrate

SDS# VBC-0076 Revision 3

ISSUED 05/08/19

[Classification according to OSHA; 29 CFR § 1910.1200, (3/12/2012)]

it is the users' own responsibility to determine the suitability of this information for their own particular use of this product. If necessary, contact Valent BioSciences LLC to confirm that you have the most current product label and SDS.

This Safety Data Sheet (SDS) serves different purposes than and DOES NOT REPLACE OR MODIFY THE EPA-APPROVED PRODUCT LABEL (attached to and accompanying the product container). This SDS provides important health, safety, and environmental information for employers, employees, emergency responders and others handling large quantities of the product in activities generally other than product use as required by the Occupational Health and Safety Act (29 CFR 1910.1200, "Hazcom"). The product label provides information specifically for product use in the ordinary course. Use, storage and disposal of pesticide products is regulated by the EPA under the authority of FIFRA through the product label. All necessary hazard classification and appropriate precautionary use, storage, and disposal information is set forth on that label or labeling accompanying the pesticide or to which reference is made on the label. It is a violation of federal law to use an EPA-registered pesticide product in any manner inconsistent with its labeling.



870 Technology Way
Libertyville, IL 60048 – 800-323-9597

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Safety Data Sheet

SPLAT GM-O

Version 2.2019

Section 1: Identification

Product Name: SPLAT GM-O

Product Code: SPLAT GM-O

Recommended Use: For selective control of the gypsy moth, *Lymantria dispar*.

Manufacturer: ISCA Technologies, Inc.

1230 W. Spring Street

Riverside, CA 92507

USA

info@iscatech.com

Emergency Phone Number: +1-951-686-5008

Section 2: Hazard Identification

UN GHS Classification and Hazard Statement:

H303 - May be harmful if swallowed

H313 - May be harmful in contact with skin

Hazard Pictograms: N/A

Signal Word: Warning

Precautionary Statements:

P102 - Keep out of reach of children

P103 - Read label before use

P264 - Wash hands, forearms, and exposed areas thoroughly after handling.

P270 - Do not eat, drink or smoke when using this product

P280 - Wear eye protection, protective clothing, protective gloves

P301+P330 - IF SWALLOWED: Rinse mouth.

P302+P352 - IF ON SKIN: Wash with plenty of water

P304+P340 - IF INHALED: Remove person to fresh air and keep comfortable for breathing

P305+P351+P338 - IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing

P312 - Call a POISON CENTER or doctor if you feel unwell

P333+P313 - If skin irritation or rash occurs: Get medical advice/attention

P337+P313 - If eye irritation persists: Get medical advice/attention

P362+P364 - Take off contaminated clothing and wash it before reuse.

P235 - Keep cool

P501 - Dispose of contents/container according to local, regional, national, and international regulations

Section 3: Composition/Information on Ingredients

Name	CAS #	Molecular Mass	Molecular Formula	Chemical Name
Disparlure	29804-22-6	282.5	C ₁₉ H ₃₈ O	(cis)-7,8-epoxy-2-methyloctadecane
Oil, wax and water emulsions	Not applicable	Not applicable	Not applicable	Not applicable

Section 4: First Aid Measures

If swallowed: Call 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 poison control center or doctor. Do not give anything to an unconscious person.

If on skin: Take off contaminated clothing. Wash skin immediately with soap and water, then rinse with plenty of water for 15-20 minutes. Call a poison control center or doctor for treatment advice.

If in eyes: Hold eye 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 eye. Call poison control center or doctor for treatment advice.

If inhaled: Move person to fresh air. If person is not breathing, call 911 or an ambulance, then give artificial respiration, preferably by mouth-to-mouth, if possible. Call a poison control center or doctor for treatment advice.

Notes to physician: All treatments should be based on signs and symptoms observed in the patient. Consideration should be given to the possibility that overexposure to materials other than this product may have occurred.



Safety Data Sheet

SPLAT GM-O
Version 2.2019

Section 5: Firefighting Measures

Suitable extinguishing media: Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide.

Potential hazardous products of combustion: Carbon dioxide, carbon monoxide, smoke, fumes, unburned hydrocarbons, and other products of combustion.

Advice for firefighters: Wear self-contained breathing apparatus for firefighting if necessary.

Section 6: Accidental Release Measures

In case of leak or spill, wipe with oil-absorbent towels and dispose of waste as indicated in Section 13. Clean with water and citrus or limonene-based detergents.

Section 7: Handling and Storage

Storage: Store product in sealed containers in a cool dry place, out of direct sunlight. For optimal shelf life, keep refrigerated. Do not exceed 75°F (25°C) for long-term storage. Do not freeze. Do not store with food.

Incompatible materials: Keep away from heat, oxidizers and strong acids.

Section 8: Exposure Controls/Personal Protection

Engineering controls: Safety shower and eye wash.

Personal protective equipment: Applicators and handlers must wear long-sleeved shirts, long pants, socks, shoes, and waterproof gloves. Protective eyewear is recommended. Follow the manufacturer's instructions for cleaning and maintaining PPE. If no such instructions are available for washables, use detergent and hot water. Keep and wash PPE separately from other laundry.

General hygiene measures: Handle in accordance with good industrial hygiene and safety practice. Wash thoroughly with soap and water after handling and before eating, drinking, chewing gum, using tobacco, or using the toilet. Avoid contact with skin, eyes or clothing. Remove contaminated clothing and wash before reuse.

Section 9: Physical and Chemical Properties

Physical state: Thick liquid
Color: Gray
Odor: Waxy, fatty
pH: Not available
Melting point: Not available
Boiling point: > 100°C

Flash Point: Not available
Specific Density: 0.90 ± 0.01 g/mL at 25°C
Partition coefficient n-octanol/water: Not available
Solubility: Partially soluble in water
Vapor Pressure: Not available

Section 10: Stability and Reactivity

Reactivity: No dangerous reaction known under conditions of normal use.

Chemical stability: Stable under normal temperatures and pressures.

Possibility of hazardous reactions: Hazardous polymerization will not occur.

Conditions to avoid: High temperatures and live electrical circuits.

Incompatible materials: Oxidizing agents, strong acids.

Hazardous decomposition products: None known.

Section 11: Toxicological Information

Not available.

Section 12: Ecological Information

For terrestrial uses only. Do not contaminate water during application, disposal, or equipment cleanup.



Safety Data Sheet

SPLAT GM-O

Version 2.2019

Section 13: Disposal Considerations

Pesticide disposal: To avoid waste, use all material in this container by application according to label directions. If waste cannot be avoided, offer remaining product to a waste disposal facility or pesticide disposal program (often such programs are run by regional or local governments or by industry).

Container handling: Non-refillable container. Do not refill or reuse this container. Scrape any remaining product out of the container with a spatula or other appropriate tool. Triple rinse promptly after emptying, then puncture container. Offer for recycling, if available, or dispose of in a sanitary landfill or by incineration. Do not burn unless allowed by regional and local ordinances.

Observe all national, regional, and local environmental regulations.

Section 14: Transport Information

Transport in accordance with local, state and federal regulations.

Section 15: Regulatory Information

Not available.

Section 16: Other Information

The above information is believed to be correct but does not purport to be all inclusive and shall be used only as a guide. The information in this document is based on the present state of our knowledge and is applicable to the product with regard to appropriate safety precautions. It does not represent any guarantee of the properties of the product. Users are advised to confirm in advance of need that information is current, applicable and suited to the circumstance of use. ISCA Technologies, Inc. shall not be held liable for any damage resulting from handling or from contact with the above product. Furthermore, ISCA Technologies, Inc. assumes no responsibility for injury caused by abnormal use of this material even if reasonable safety procedures are followed. Any questions regarding this product should be directed to the manufacturer indicated in Section 1.

SDS revision date: 1 November 2019

**EMERGENCY TELEPHONE NUMBERS
2020 COOPERATIVE GYPSY MOTH PROJECT**

**Huntington County - Huntington MD 20 Site
Huntington County - Huntington Btk 20 Site**

Dispatch	Huntington County 911 Dispatch	260-356-8316 Or 260-356-7110
Law Enforcement	Huntington County Sheriff Department 332 E State St, Huntington, IN 46750	911 or 260-356-2520 (Dispatch/Nonemergency)
	State Police – District 22- Fort Wayne 5811 Ellison Road, Fort Wayne, IN 46804	911 or 260-432-8661 800-552-0976
	DNR Law Enforcement District 1 Headquarters 1353 S Governors Rd, Columbia City, IN 46725	260-244-3720
Fire	Huntington Fire Department 8227 N 900 W, Bippus, IN 46713	911 or 260-356-3620
	Bippus Fire Department 300 Cherry St # 101, Huntington, IN 46750	911 or 260-344-3801
	Dallas Township Volunteer Fire Department 796 N Main St, Andrews, IN 46702	911 or 260-786-1866
Hospitals	Parkview Huntington Hospital 2001 Stultz Rd, Huntington, IN 46750	260-355-3000
County	Huntington County Emergency Management 201 N Jefferson St., Huntington, IN 46750	260-358-4870
	Huntington County Health Department 1330 S Jefferson St, Huntington, IN 46750	260-358-4831
	Purdue Extension Huntington County Ed Farris 1340 South Jefferson Street, Huntington, IN 46750	260-358-4826
	Huntington County Commissioners 201 N Jefferson St, Huntington, IN 46750 Larry Buzzard (President), Rob Miller (Vice President), Tom Wall	260-358-4822
Airport	Fort Wayne International Airport 3801 W Ferguson Rd, Fort Wayne, IN 46809	260-747-4146 Tower: 260-479-6551
Airport	Huntington Municipal Airport 1365 Warren Rd, Huntington, IN 46750	260-356-8515
Chemical Spill	Poison Control	800-382-9097
	Dept. of Environmental Management - Spill Line	888-233-7745
	CHEMTREC (Chemical Transportation Emergency Center)	800-424-9300
	National Response Center (if spill occurs on a highway)	800-424-8802

**EMERGENCY TELEPHONE NUMBERS
2020 COOPERATIVE GYPSY MOTH PROJECT**

Marshall County - Green Twp MD 2020

Dispatch	Marshall County 911 Dispatch	574-936-3187 (ext. 3)
Law Enforcement	Marshall County Sheriff Department 1400 Pioneer Dr., Plymouth	911 or 574-936-3187 (Dispatch/Nonemergency)
	State Police - Bremen District 1425 Miami Trail, Bremen	911 or 574-546-4900 800-552-2959
	DNR Law Enforcement District 1 Headquarters 9822 N Turkey Creek Rd, Syracuse	574-457-8092
Fire	Argos Fire Department 111 N Center Street, Plymouth	911 or 574-892-5122
Hospitals	St. Joe Regional Med Center 1915 Lake Ave., Plymouth	574-948-4000
County	Marshall County Emergency Management 112 W Jefferson, Rm 300, Plymouth	574-936-3740
	Marshall County Health Department 510 W Adams GL-30, Plymouth	574-935-8565
	Purdue Extension Marshall County Bob Yoder	574-935-8545
	Marshall County Commissioners Mike Burroughs Stan Klotz Kevin Overmyer, President	574-935-8555 574- 574-546-4655 574-952-0852
Airport	Plymouth Municipal Airport 301 Airport Drive, Plymouth	574-935-5152
	Fulton County Airport 545 N State Road 25, Rochester	574-223-5384
Chemical Spill	Poison Control	800-382-9097
	Dept. of Environmental Management - Spill Line	888-233-7745
	CHEMTREC (Chemical Transportation Emergency Center)	800-424-9300
	National Response Center (if spill occurs on a highway)	800-424-8802

**EMERGENCY TELEPHONE NUMBERS
2020 COOPERATIVE GYPSY MOTH PROJECT**

Porter County – Westville Btk 20

Dispatch	Porter County 911 Dispatch	911
Law Enforcement	Porter County Sheriff Department – Sheriff David Reynolds 2755 State Road 49, Valparaiso, IN 46383	911 or 219-477-3000 (Dispatch/Nonemergency)
	Valparaiso Police Department Chief Jeff Balon 355 South Washington Street, Valparaiso, IN 46383	911 or 219-462-2135
	State Police – Lowell District 1550 East 181 Avenue, Lowell, IN 46356	911 or 219-696-6242
	DNR Law Enforcement District 10 Headquarters 100 West Water Street, Michigan City, IN	219-879-5710
Fire	Fire Department - Valparaiso 2605 Cumberland Drive, Valparaiso, IN	911 or 219-462-8325
Hospitals	Porter Regional Hospital 85 East U.S. Hwy 6, Valparaiso, IN	219-938-8300
County	Porter County Emergency Management Agency Director Lance Bella 1995 South State Road 2, Vaparaiso, IN	219-465-3490
	Porter County Health Department Contact - M.L. Stamp 155 Indiana Avenue-Suite 104, Valparaiso, IN 46383	219-465-3525
	Purdue Extension Porter County – Annette Jones	219-465-3555
	Porter County Commissioners John A. Evans, Jeff Good, Laura Shurr Blaney	219-465-3440
Airport	Porter County Regional Airport 4207 Murvihill Road, Valparaiso, IN	219-462-2913 800-462-6508
	FAA – Accident Report – Des Plaines, IL	847-294-7294
Chemical Spill	Poison Control	800-382-9097
	Dept. of Environmental Management - Spill Line	888-233-7745
	CHEMTREC (Chemical Transportation Emergency Center)	800-424-9300
	National Response Center (if spill occurs on a highway)	800-424-8802