



Cape Cod Cranberry Growers' Association

GROWER ADVISORY

Hazardous Materials

In farming, a hazardous material release can occur in any number of situations. A hazardous material release can occur when gasoline spills in your shop, when you are loading pesticides for transport, mixing pesticides for their final use, transporting pesticides or fertilizers from retailer to farm, when an underground fuel tank is leaking, if the fuel tank for an irrigation pump leaks, or if there is a fire at the building where you house pesticides, fertilizers, or fuel.

As required by Massachusetts General Law Chapter 21E and described in the Massachusetts Contingency Plan (MCP – 310 CMR 40.0000), there are certain requirements for how one responds to a release or the threat of a release. This advisory attempts to explain these sometimes complex laws and how to deal with a release if one should occur.

A release is defined under the MCP as *any spilling, leaking, pumping, pouring, emitting, emptying, discharging, injecting, escaping, leaching, dumping, or disposing into the environment.*

Exclusions, however, do exist. The following **ARE NOT** considered to be a release:

- Emissions from the exhaust of an engine
- The normal application of fertilizer
- The application of pesticides in a manner consistent with their labeling

Furthermore, there are certain thresholds that if reached, you are responsible for notifying the Massachusetts Department of Environmental Protection (MassDEP) about that release. These thresholds are set as Reportable Quantities and a failure to notify the Department could render you subject to penalty of fine. Please see the insert for a list of common hazardous materials used in cranberry production.

You are not under any obligation to notify MassDEP when the release is of a known amount that is not equal to or greater than the Reportable Quantity. Other situations that do not require notification include:

- Releases of oil that occur during normal handling and transfer operations at an oil facility, if the releases are completely captured by a properly functioning oil/water separator
- Releases of gasoline or diesel fuel that result from the rupture of the fuel tank of a passenger vehicle as a result of an accident involving that vehicle
- Release of methane, propane, and other component compounds associated with a release of natural gas, natural gas liquids and liquefied natural gas
- Sheens associated with normal surface water runoff from roadways, driveways, and parking lots
- Releases of hazardous materials indicated by residues in the environment resulting from the application of pesticides in a manner consistent with their labeling
- A release or threat of release of oil and/or hazardous materials to the interior of a building, provided such releases are completely contained within the building and the building does not have an earthen floor

Although the above releases do not require Notification, you are required to take the necessary actions to clean-up the release to eliminate any significant risk to health, safety, public welfare, or the environment as described in the MCP at 310 CMR 40.0900.

Notification Within 2 Hours

Under many circumstances, you will need to notify MassDEP within 2 hours of the release or of finding the release. Releases that need to be reported to MassDEP within 2 hours include any release of oil or a hazardous material that is sudden, continuous, or intermittent and is listed in 310 CMR 40.1600 when:

- The amount released is equal to or greater than the Reportable Quantity
- The amount is unknown or is likely equal to or greater than the Reportable Quantity
- It is likely that the release occurred within a period of 24 hours
- Any material that does not have a Reportable Quantity under 310 CMR 40.1600 but has any of the following characteristics is also subject to needing to be reported within 2 hours:
 - It is a liquid that shows ignitability with a flash point less than 140° F
 - It is not a liquid and is capable under standard temperature and pressure of catching fire through friction
 - It is an oxidizer
 - It is liquid and has a pH equal to or less than 2.0 or equal to or greater than 12.5
 - It is a liquid and corrodes steel (Type SAE 1020) at a rate greater than 6.35 mm per year at a test temperature of 55° C
 - It is a liquid or solid that causes visible destruction or irreversible alterations in skin tissue at the site of contact

Remember, a spill of several ounces of a pesticide will not require notifying MassDEP because it is below the Reportable Quantity (RQ), but you are required to cleanup that release.

Threats of Release

A Threat of Release “means a substantial likelihood of a release of oil and/or hazardous material which requires action to prevent or mitigate damage to health, safety, public welfare or the environment which may result from a release.”

If the possible release will be of a quantity equal to or greater than the Reportable Quantity, it will require that MassDEP be notified, just as if it were a release.

Additionally, any release that could pose an Imminent Hazard, irrespective of the quantity released, requires MassDEP notification.

An Imminent Hazard is defined in detail at 310 CMR 40.0321. For our purposes an Imminent Hazard may be described as: a release to a roadway that endangers public safety; a release to the environment of oil and/or hazardous material which poses a significant risk to human health when present for even a short period of time; a release to the environment of oil and/or hazardous material which produces immediate or acute adverse impacts to freshwater or saltwater fish populations; or a release to the environment which produces readily apparent effects to human health, including respiratory distress or dermal irritation.

Any threat of release or potential Imminent Hazard requires Notification to MassDEP within two (2) hours of you becoming aware of the condition. You may be exempt from Notification within 2 hours if there is:

- A lack of reasonably available communication equipment at the site;
- A need to take actions prior to notification in order to mitigate or prevent an Imminent Hazard and/or threat to public safety;
- Physical injury to the person responsible for notifying caused by or associated with the release or threat of release, when the injury reasonably prevents that person from notifying.

You must Notify the MassDEP as soon as practical when the condition preventing Notification outlined above has been addressed.

To summarize, if there exists the threat of a release, you are required to notify MassDEP if the expected release would be equal to or greater than the Reportable Quantity or if an Imminent Hazard exists.

Steps to Take During a Release

With any spill, release, or threat of release, it is important to take several key steps in the first moments. As outlined above, even if pesticides are spilled but do not meet the Reportable Quantity, you should take every step possible to contain the spill and cleanup the material that is contaminated. Dispose of the material in a manner consistent with state and federal regulations

The following are the most important steps in any release or emergency:

1. Ensure that other workers are safe and that any release does not immediately threaten others
2. If possible, contain spill through use of earthen berms or absorbent materials
3. Determine if the Fire Department needs to be notified
4. Determine if the release was equal to or greater than the Reportable Quantity and if so, contact MassDEP within the required timeframes
5. If an Imminent Hazard exists, you must contact MassDEP within 2 hours

If the release or threat of release is of a greater magnitude, you should check to make sure no one was injured. You should call 911 and keep others away. In the case of oil or hazardous materials being spilled, you may be able to help contain the spill, preventing further contamination if the material were to enter a body of water, drainage system, or well. In the threat of release, you may be able to construct containment in case of spill. In the event of a fire where you store fertilizers, pesticides, or oil, you may be able to extinguish a small fire and you should try to keep others upwind before Emergency Responders are on hand to help.

Release of a Tank Mixture

If you have mixed concentrated chemical into your mix tank and the tank or line were to rupture, the Reportable Quantity is the amount of the concentrated mixture that is released. For example, let's assume you are mixing one pound of concentrate to nine pounds of water and the pesticide has a Reportable Quantity of five pounds. If thirty pounds of the suspended mixture spills, you are not required to notify MassDEP because only three pounds of the hazardous material was released. In this example, you would need to spill fifty pounds or more before you are required to notify MassDEP.

With any release, your safety and the safety of co-workers is the first goal. Once you have assured your and other's safety, you should begin to follow the recommendations here.

The information in this guide is provided by the Cape Cod Cranberry Growers' Association as a service to its members. The information represents our interpretation of the state requirements and by no means is intended to act as a substitute for reading and following the specific regulatory requirements.

**Massachusetts General Law Chapter 21E
And
Code of Massachusetts Regulations 310 CMR 40.0000
Code of Massachusetts Regulations 527 CMR 9.00**

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For more information, please contact:

MassDEP
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Lakeville, MA 20347
Phone: 508-946-2700
<http://www.mass.gov/dep>

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Plymouth, MA 02360
Phone: 508-866-7878
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Things to Remember When an Emergency Happens

In Case of Fire or Spill:

- Wear Personal Protective Equipment (PPE) the same as handling for chemicals
- Check to make sure no one is in/around building or area
- Keep people away from fire and/or spill
- If fire or spill is small extinguish/contain first
- Work to keep any liquid material from moving by making an earthen dam
- Use absorbent materials to clean up a spill and dispose according to proper methods
- If anyone is injured or the fire and/or spill is too large to handle yourself, call 911 immediately
- When emergency responders arrive, be ready to provide Material Safety Data Sheets (MSDS), a layout of the building/grounds, and any other information responders may need
- Stay clear of responders otherwise; keep others from entering the scene
- Stay upwind of the fire to avoid any contact with chemicals.

Afterwards

- If a situation exists that constitutes an Imminent Hazard, contact MassDEP
- Consult the MA Reportable Quantities for Hazardous Materials list
- In most cases, if enough material is spilled or released, you are required by law to report this to MassDEP within 2 hours of the spill occurring.

CONTROL

actively spilling or leaking materials

CONTAIN

spilled material with absorbent materials

COLLECT

the spilled material and dispose properly

NOTIFY

MassDEP IF REQUIRED

MassDEP 24-Hour Hotline:

1-888-304-1133



A full list of Hazardous Materials and their Reportable Quantities is available at 310 CMR 40.1600 or through the MassDEP website here: <http://public.dep.state.ma.us/momhl/hazmat.aspx>

The following is list of common hazardous materials used on the farm.

Fungicides	RQ (lbs)	Liquid Measure	Insecticides	RQ (lbs)	Liquid Measure
Bravo Ultrex	5	-	Chlorpyrifos 4E AG	1	14 ounces
Bravo WeatherStik	5	57 ounces	Diazinon 50 W	1	-
Chloronil 720	5	57 ounces	Diazinon 5W	1	14 ounces
Chlorothalonil 720 F	5	58 ounces	Diazinon AG500	1	15 ounces
Chlorothalonil 720SC	5	57 ounces	Diazinon AG600	1	14 ounces
Cuprofix MZ Disperss	5	-	Hatchet	1	14 ounces
Dithane DF Rainshield	5	-	Imidan 70 W	1	-
Dithane F-45 Rainshield	5	57 ounces	Lorsban 4E	1	14 ounces
Echo 720	5	57 ounces	Lorsban 75 WG	1	-
Echo 90 DF	5	-	Lorsban Advanced	1	14 ounces
Equus 500 ZN	5	59 ounces	Nufos 4E	1	14 ounces
Equus 720 SST	5	58 ounces	Pyronyl	1	19 ounces
Equus DF	5	-	Acephate 75 WSP	10	-
Manex	5	59 ounces	Acephate 97 UP	10	-
Penncozeb 4 FL	5	59 ounces	Carbaryl 4L	10	1 gallon, 10 oz.
Penncozeb 75 DF	5	-	Orthene 75S	10	-
Penncozeb 80 WP	5	-	Orthene 97	10	-
Ridomil Gold GR	100	-	Sevin 4F	10	1 gallon, 12 oz.
Ridomil Gold SL	100	11 gallons, 40 oz.	Sevin 80 S	10	-
			Sevin 80 WSP	10	-
			Sevin XLR Plus	10	1 gallon, 12 oz.
			Assail 30 SG	100	-
Herbicides	RQ (lbs)	Liquid Measure	Material	RQ (lbs)	Liquid Measure
Vapam	1	13 ounces	Gasoline	10	1 gallon, 81 oz.
Stinger	5	66 ounces	Diesel	10	1 gallon, 53 oz.
Casoron	10	-	Liquefied petroleum gas (LPG)	10	2 gallons, 46 oz.
Caliber	10	-			
Callisto	10	1 gallon			
Crossbow	10	1 gallon, 23 oz.			
Princep	10	1 gallon, 6 oz.			
Weedar 64	10	1 gallon, 5 oz.			
Diquat	50	5 gallons			
Fusilade	100	12 gallons, 31 oz.			
Poast	100	12 gallons, 111 oz.			
Select Max	100	13 gallons			