



# Chambers County Fire Marshal's Office HazMat Storage Requirements



## Storage of Hazardous Materials

Storage of hazardous materials shall be in accordance with the county-adopted fire code, *International Fire Code*, 2015 Edition, and applicable NFPA standards when referenced.

## Fire Code Review

In order to determine specific requirements for your particular application, the following information will be required to conduct a Fire Code Review for Hazardous Materials storage:

1. A completed Haz Mat Routing Form, to advise the Fire Marshal's Office of the type and quantities of materials to be stored;
2. SDS (MSDS) documentation for each stored material(s);
3. Size and type of containers the material will be stored in; and
4. Location of outdoor storage in relation to buildings and lot lines.

These documents must be submitted as part of the permitting process through [www.mygovernmentonline.org](http://www.mygovernmentonline.org)

## Sprinklered vs. Non-Sprinklered Buildings

Buildings constructed after May 24, 2011 shall be constructed according to the county-adopted fire code. Conditions and operations, regardless of the date the building was constructed, shall be regulated by the county-adopted fire code. Regardless of building square footage, storage exceeding quantities per control area, as referenced in Table 5003.1.1(1), may require the building to be sprinklered and/or classified as a Hazardous (H) occupancy.

## Control Areas

A control area is a means to separate hazardous materials by the use of 1-hour fire barriers. A building without defined control areas is considered one control area (for example, an open 10,000sf warehouse). Maximum allowable quantities per control area are determined by Chapter 50 and additional chapters of the IFC which regulate specific hazardous materials. A single story, non-sprinklered building is allowed a maximum of 4 control areas per Table 5003.8.3.2. In some cases, the addition of a fire sprinkler system will allow a 100% storage increase, as is the case with flammable and combustible liquid storage warehouses (Ch. 57).

In general, **INDOOR** storage of hazardous materials is limited to the following quantities in a single, non-sprinklered building. Storage may be allowed to be increased for sprinklered buildings. Ref. IFC Sec. 5003.1.1.

<b>Product</b>	<b>Maximum Per Control Area</b>	<b>Note</b>
Diesel (II)	120 gallons	Ref. Ch. 57
Gasoline (IB)	120 gallons	Ref. Ch. 57

Propane*	200 pounds 300 pounds	If accessible by the public If non-public accessible Ref. Ch. 61 and NFPA 58
Acetylene	1,000 cubic feet	Ref. Ch. 58
Chlorine (3)**	10 pounds solid or liquid 1,150 pounds if Group S or M	200 pounds or 20 gallons if stored for maintenance or operations purposes Ref. Ch. 63 Ref. Table 5003.11.1
Toxics	500 pounds of solid or liquid, 810 cubic feet of gas, 150 pounds of liquefied	Ref. Ch. 60
Highly Toxics	10 pounds of solid or liquid, 20 cubic feet of gas, 4 pounds of liquefied	Ref. Ch. 60

\*Provisions of NFPA 58 shall also apply. In general, the use of LP gas indoors is prohibited. A small self-contained torch assembly with a 2.5lb container is allowed. Ref. Sec. 6103.

\*\* Table 5003.11.1 allows increases for Group S or M occupancies, including increases for storage cabinets and 10-pound packaging. See table footnotes b, c, and g.

### **Outdoor Storage Areas**

Storage outside of a building shall be per Sec. 5003.12, and any related specific chapters of the IFC. Outdoor storage of materials is still regulated by control areas, per Table 5003.1.1(3), and any related specific chapters. The material to be stored will dictate specific requirements. For example, the outdoor storage amounts of flammable and combustible liquids in containers is regulated by Ch. 57 and Table 5704.4.2, and significantly more quantities may be stored than indoors, subject to those specific provisions.

Outdoor control areas must be free of weeds and combustible materials, and not be located adjacent to buildings or a lot lines (unless protected with a 2-hour fire resistance-rated wall). Depending upon lot size, multiple outdoor control areas may be allowed, if separated according to Sec. 5003.12 (3) and (4).

In general, **OUTDOOR** storage of hazardous materials is limited to the following quantities:

<b>Product</b>	<b>Maximum Per Control Area</b>	<b>Note</b>
Diesel (II)	8,800 gallons of containers 17,600 gallons of portable tanks	5ft between storage piles, 25ft to lot line or building on site* Ref. Ch. 57 and Table 5704.4.2
Gasoline (IB)	2,200 gallons of containers 4,400 gallons of portable tanks	5ft between storage piles, 50ft to lot line or buildings on site* Ref. Ch. 57
Propane	Containers stored – not connected for use -	Reference IFC Table 6109.12 for additional information Ref. Ch. 61 and NFPA 58

Acetylene	3,000 cubic feet	Ref. Ch. 58
Chlorine (3)**	40 pounds solid or liquid 1,150 pounds if Group S or M	200 pounds or 20 gallons if stored for maintenance or operations purposes Ref. Ch. 63 Ref. Table 5003.11.1
Toxics	1,000 pounds of solid or liquid, 1,620 cubic feet of gas or 300 pounds liquefied	Toxic and Highly toxic compressed gases not allowed within 75' of lot line, street, or public way, unless a 2-hour fire barrier. Ref. Sec. 6004.3.2. Ref. Ch. 60
Highly Toxics	20 pounds of solid or liquid, 40 cubic feet of gas or 8 pounds liquefied.	See above. Ref. Ch. 60

\*\*Table 5003.11.1 allows increases for Group S or M occupancies, including increases for storage cabinets and 10 pound packaging. See table footnotes b, c, and g.

**Location of outdoor storage in relation to distance to buildings and lot lines has to be evaluated.**

### **Gas Rooms and Exhausted Enclosures**

In some cases, gas rooms, exhausted enclosures, gas cabinets, and hazardous materials storage cabinets may be used to exceed the maximum allowable storage quantity. Gas rooms must be protected with an automatic sprinkler system, and exhausted enclosures must be protected with an automatic extinguishing system. Construction requirements for each are referenced in Sec. 5003.8.4, 5, 6, and 7.

### **Stationary Tanks**

Specific requirements for outdoor storage tank locations will apply. Ref. Table 5705.3.4(2) for flammable and combustible liquid tanks, and Table 6104.3 for stationary LP-Gas Containers.

### **Spill Containment**

Spill control measures, including secondary containment, must be in place per Sec. 5004. Liquid tight, sloped or recessed floors, dikes, etc. may be utilized. Storage of toxic or highly toxic materials require liquid tight floors per IFC Sec. 6003.1.4.

### **Signs and Placards**

Proper NFPA 704 hazard signs and “No Smoking” signs must be in place, as applicable. Ref. Sec. 5003.4

### **Hazardous Materials Inventory Statement and SDS**

Facilities must submit hazardous materials inventories and Safety Data Sheets (SDS) per Sec. 5001.5.1 and 5001.5.2

### **Separation from Other Occupancies**

Separation from Other Occupancies: If you are also going to have offices in the building, there needs to be at least a 2 hour separation between it and the storage area (IBC 508.4).

### **Storage Plans and Layouts**

Knowing the class of materials stored, container sizes, and total desired quantity to be stored of each will help determine specific requirements. Information such as group container size and type, quantities of each container, and storage height are needed for review. Once this is known, a storage layout can be determined (for example pile size, aisle widths, space between piles, separation of incompatible materials, etc.).

### **Specific Storage Requirements**

Although Chapter 50 and the above requirements apply to all hazardous materials storage occupancies, specific storage requirements will depend upon the type of material, the amount of material, and the type of building in which the material is to be stored. For example, flammable and combustible liquids, toxics, and LP gas have some specific requirements.

### **Flammable and Combustible Liquids (IFC Ch. 57)**

In addition to the above requirements,

- The height of storage piles can be no more than 20' tall or (5) 55 gallon drums tall.
- The maximum gallons per pile/group would be 15,000 gallons (about 272 of the 55 gallon drums).
- Separation between storage piles should be at least 4'. So your storage arrangement would be "squares" of these storage piles arranged with 4' aisles in between. Main aisles should be a minimum of 8' wide (for example, a main aisle down the middle of the warehouse leading to an overhead door, etc.).
- Adequate ventilation required per 5704.3.8.3
- Standpipes with 1 inch or 1.5" hose lines required in sufficient number to reach all liquid storage areas per 5704.3.8.5 and 905.5. All portions of the building must be within 30 ft. of a nozzle attached to 100 ft. hose.

### **Toxics and Highly Toxic Hazardous Materials (IFC Ch. 60)**

- Require liquid tight floors per Sec. 6003.1.4.1
- Exhaust ventilation may be required per Sec. 6003.1.5.2, 6003.1.5.3
- Gas detection may be required per Sec. 6004.2.2.9, 6004.2.2.10 for toxic gas storage.

For information, please email [firemarshal@chamberstx.gov](mailto:firemarshal@chamberstx.gov)

# HAZARDOUS MATERIAL INVENTORY STATEMENT

## HMIS

### INSTRUCTIONS

- A. Provide separate H.M.I.S. form for each type of Storage, (INSIDE -OUTSIDE) and Use (OPEN – CLOSED) and check appropriate boxes as provided on the form.
- B. Indicate the chemical storage or use area on the H. M. I. S. form as designated on the area site plan.

#### COLUMNS

1. Provide hazard classes for each material. Many materials will have multiple hazards.

#### PHYSICAL HAZARD

- EXPLOSIVES AND BLASTING AGENTS (See UFC Table 8802.3.A);
- COMPRESSED GASES- Air, Flammable, Inert Oxidizing, Pyrophoric, Simple Asphyxiant.
  
- Unstable, and Health Hazards as listed below;
- FLAMMABLE LIQUIDS – Class I-A, Class I-B, Class I-C
- COMBUSTIBLE LIQUIDS – Class II, Class III-A, Class III-B;
- FLAMMABLE SOLIDS;
- OXIDERS (Solids and Liquids) – Class I thru 4;
- ORGANIC PEROXIDES – Class I thru 5
- PYROPHORIC (Solids and Liquids);
- Unstable (Relative) – Class I Thru 4;
- WATER REACTIVE (Solids and Liquids) – Class I Thru 3;
- CRYOGENIC FLUIDS (See Article 75).

#### HEALTH HAZARDS:

- HIGHLY TOXIC (Including Highly Toxic Compressed Gases);
- TOXIC (Including Toxic Compressed Gasses);
- RADIOACTIVE MATERIALS;
- CORROSIVES;
- CARCINOGENS;
- IRRITANTS;
- SENSITIZERS;
- OTHER HEALTH HAZARDS.

2. Provide the common or trade name of the regulated material.
3. Provide the chemical name and major constituents and concentrations if a mixture.
4. Enter the chemical abstract service number (C.A.S. NUMBER) found in 29 C.F.R. for mixtures enter the C.A.S. number of the mixture as a whole if it has been assigned a number distinct from its constituents. For a mixture that has no C.A.S. number leave this item blank or report the C.A.S. numbers of as many constituents chemicals as possible.
5. Enter the physical state using the following descriptive codes as they apply to each material. You may list more than one code if applicable.
  - P = PURE
  - M = MIXTURE
  - S = SOLID
  - L = LIQUID
  - G = GAS

# HAZARDOUS MATERIAL INVENTORY STATEMENT

## HMIS

### INSTRUCTIONS

6. Enter the estimated maximum daily amount on site at any one time during the past year.

7. Using the codes listed below in column seven enter the units used.

- LB = POUNDS
- GA = GALLONS
- CF = CUBIC FEET

8. Enter the storage codes below for type, temperature and pressure:

<u>TYPE</u>	<u>PRESSURE</u>
<p>A = ABOVEGROUND TANK            B = BELOWGROUND TANK            C = TANK INSIDE BUILDING            D = STEEL DRUM            E = PLASTIC OR NONMETALLIC DRUM            F = CAN  <u>G = CARBOY</u>            H = SILO            I = FIBER DRUM            J = BAG            K = BOX            L = CLYLINDER            M = GLASS BOTTLE OR JUG            N = PLASTIC BOTTLES OR JUGS            O = TOTE BIN            P = TANK WAGON            Q = RAIL CAR            R = OTHER</p>	<p>1 = AMBIENT (ATMOSPHERIC)            2 = GREATER THAN AMBIENT            3 = LESS THAN AMBIENT</p>
	<u>TEMPERATURE</u>
	<p>4 = AMBIENT            5 = GREATER THAN AMOUNT            6 = LESS THAN AMBIENT – BUT NOT CRYOGENIC            LESS THAN –150’F)            7 = CRYOGENIC CONDITIONS            (LESS THAN – 150’)</p>

9. N.F.P.A. classification: Select applicable from list below:

HEALTH \_\_\_\_\_ FIRE \_\_\_\_\_ REACTIVITY \_\_\_\_\_ SPECIFIC HAZARD \_\_\_\_\_

10. WASTE ONLY:

For each waste provide the total estimated amount of hazardous waste handle throughout the course of the year







# Chambers County Fire Marshal's Office

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## HAZARDOUS MATERIALS INVENTORY ROUTING FORMS

IFC 2015, SECTION 5001.5 – ENABLES THE CODE OFFICIAL TO REQUIRE AN APPROVED STATEMENT BE PROVIDED CONTAINING ALL OF THE FACILITIES HAZARDOUS MATERIALS INFORMATION WITH AN APPLICATION FOR PERMIT.

Purpose: The information provided in this document is to clarify the attached routing forms that shall accompany the permit application. The routing forms are not intended to be all inclusive of Fire and Building Code requirements. There are additional materials and requirements contained in the codes not addressed in this document.

Directions: Fill out the forms for the materials stored, used or handled at your site by indicating **yes** or **no** in each area provided. If you do not have a type of material listed on this form, please mark **no** in the last two columns. Do not put **NA** or **DNA**. These forms in their entirety shall be submitted with each permit application for permit types listed below. However, if there are multiple permit types for one address, then only one form will need to be filled out for that address. Different addresses require separate permits and separate forms.

Permit Types Requiring Hazardous Materials Form:

CODE	DESCRIPTION
105.6.1	AEROSOL PRODUCTS
105.6.8	COMBUSTIBLE FIBERS
105.6.9	COMPRESSED GASES
105.6.11	CRYOGENIC FLUIDS
105.6.15	EXPLOSIVES OR BLASTING AGENTS (EXCLUDING PYROTECHNIC DISPLAYS)
105.6.17	FLAMMABLE AND COMBUSTIBLE LIQUIDS
105.6.21	HAZARDOUS MATERIALS
105.6.28	LP-GAS
105.6.29	MAGNESIUM
105.6.33	ORGANIC COATINGS
105.6.37	PYROXYLIN PLASTICS

### Definitions:

**Hazardous Material** – Those chemicals or substances which are physical hazards or health hazards as defined and classified by Fire Code Chapter 27 and the Code of Federal Regulations CFR 29. These materials include substances that upon release have the potential of causing harm to people, property, or the environment. This definition includes hazardous materials, hazardous substances, hazardous wastes and dangerous goods.

**Use Closed** – The use of a solid or liquid hazardous material involving a closed vessel or system that remains closed during normal operations where vapors emitted by the product are not liberated outside of the vessel or system and the product is not exposed to the atmosphere during normal operations; and all uses of compressed gases. Examples of closed systems for solids and liquids include product conveyed through a piping system into a closed vessel, system or piece of equipment.

**Use Open** – The use of a solid or liquid hazardous material involving a vessel or system that is continuously open to the atmosphere during normal operations and where vapors are liberated, or the product is exposed to the atmosphere during normal operations. Examples of open systems for solids and liquids include dispensing from or into open beakers or containers, dip tank and plating tank operations.

**Column Description:**

Material – The main category of hazard of a material or substance that correctly identifies the primary hazard class. This information can be identified by referring to Material Safety Data Sheets (MSDS), product labels or by contacting the manufacturer of the product.

Class – Many of these materials have classifications that further identify their level of hazard. Information has been provided to help guide you on these classifications in this column and the description column. If you are in doubt about the correct classification contact your supplier or the chemical manufacturer for assistance.

Description – Includes additional information as needed to identify classes of materials or explain information for the material. Gives some examples.

Permit Amounts – Having amounts of materials in excess as indicated or having any amount of a material where indicated, requires a fire prevention permit of the correct type for storage, use or handling of that material. Please indicate on each row either **yes** or **no** for each type of material.

Exempt Amounts – (Storage, Use Closed, or Use Open) The exempt amounts are for use in the routing of the permits. In order for the permit to be routed correctly please indicate on each row either **yes** or **no** for each material. Please include both inside and outside hazardous material quantities. This is for routing purposes only and is not a determining factor for compliance issues.

Materials or Operations Requiring Special Handling – Instead of an exempt amount being listed for these materials the column labeled (**REQUIRES SPECIALTY INSPECTION**) gives an amount of material or lists an operation requiring a specialty inspection. If you store, handle or use amounts of these products as indicated or if you have operations as indicated mark YES in the column labeled (**HAVE AMOUNTS THAT REQUIRE SPECIALTY INSPECTION**). If you do not indicate NO.

**PERMIT APPLICATIONS FOR THE ABOVE LISTED PERMITS WILL NOT BE ACCEPTED WITHOUT A PROPERLY FILLED OUT HAZARDOUS MATERIALS INVENTORY ROUTING FORM BEING ON FILE FOR YOUR ADDRESS. YOU ARE REQUIRED TO SUBMIT THIS FORM WITH PERMIT APPLICATIONS OR WHEN THERE IS ANY CHANGE IN YOUR INVENTORY OF MORE THAN (10) TEN PERCENT.**

For additional information please visit our web site at: [firemarshal@chamberstx.gov](mailto:firemarshal@chamberstx.gov)

If you are not able to complete the forms we recommend you employ a state licensed fire protection engineer or other qualified individual to assist you.

# HAZARDOUS MATERIALS INVENTORY ROUTING FORM

Fill out the forms for the materials stored, used or handled at your site by indicating **yes** or **no** in each area provided. These forms in their entirety shall be submitted with each permit application when appropriate. Having permit amounts requires a permit for the operation. The exempt amounts are for use in the routing of those permits.

Project Name: \_\_\_\_\_

Address \_\_\_\_\_

## PHYSICAL HAZARDS

MATERIAL	CLASS	DESCRIPTION	PERMIT AMOUNTS	EXEMPT AMOUNTS STORAGE	EXEMPT AMOUNTS USE CLOSED – vapors are not liberated	EXEMPT AMOUNTS USE OPEN – vapors are liberated	HAVE AMOUNTS THAT REQUIRE A PERMIT?	HAVE ABOVE EXEMPT AMOUNTS?
COMBUSTIBLE LIQUIDS	II	Class II liquids include those having flash points at or above 100°F and below 140°F.	> 25 gallons inside or > 60 gallons outside	120 gallons	120 gallons	30 gallons	NO <input type="checkbox"/> YES <input type="checkbox"/>	NO <input type="checkbox"/> YES <input type="checkbox"/>
COMBUSTIBLE LIQUIDS	IIIA	Class IIIA liquids include those having flash points at or above 140°F and below 200°F.	> 25 gallons inside or > 60 gallons outside	330 gallons	330 gallons	80 gallons	NO <input type="checkbox"/> YES <input type="checkbox"/>	NO <input type="checkbox"/> YES <input type="checkbox"/>
COMBUSTIBLE LIQUIDS	IIIB	Class IIIB liquids include those liquids having flash points at or above 200°F.	Only - Tanks or Vessels > 60 gallons	13,200 gallons	13,200 gallons	3,300 gallons	NO <input type="checkbox"/> YES <input type="checkbox"/>	NO <input type="checkbox"/> YES <input type="checkbox"/>
FLAMMABLE LIQUIDS	IA	Class IA liquids include those having flash points below 73°F and having a boiling point below 100°F.	> 5 gallons inside or > 10 gallons outside	30 gallons	30 gallons	10 gallons	NO <input type="checkbox"/> YES <input type="checkbox"/>	NO <input type="checkbox"/> YES <input type="checkbox"/>
FLAMMABLE LIQUIDS	IB	Class IB liquids include those having flash points less than 73°F and boiling points at or above 100°F.	> 5 gallons inside or > 10 gallons outside	60 gallons	60 gallons	15 gallons	NO <input type="checkbox"/> YES <input type="checkbox"/>	NO <input type="checkbox"/> YES <input type="checkbox"/>
FLAMMABLE LIQUIDS	IC	Class IC liquids include those having flash points at or above 73°F and below 100°F.	> 5 gallons inside or > 10 gallons outside	90 gallons	90 gallons	20 gallons	NO <input type="checkbox"/> YES <input type="checkbox"/>	NO <input type="checkbox"/> YES <input type="checkbox"/>
COMBINATION FLAMMABLE LIQUIDS	(IA,IB,IC)	Mixture of storage or use of more than one of these materials.	> 5 gallons inside or > 10 gallons outside	120 gallons	120 gallons	30 gallons	NO <input type="checkbox"/> YES <input type="checkbox"/>	NO <input type="checkbox"/> YES <input type="checkbox"/>
CRYOGENIC, FLAMMABLE (Flammable in its vapor state)	Definition: A liquid having a boiling point lower than -150°F at 14.7 (psia).	Examples: carbon monoxide, deuterium (heavy hydrogen), ethylene, hydrogen and methane.	> 1 gallon inside or > 60 gallons outside	45 gallons	45 gallons	10 gallons	NO <input type="checkbox"/> YES <input type="checkbox"/>	NO <input type="checkbox"/> YES <input type="checkbox"/>
CRYOGENIC Inert			> 60 gallons inside or 500 gallons outside	Not Limited	Not Limited	Not Limited	NO <input type="checkbox"/> YES <input type="checkbox"/>	Not Limited

# HAZARDOUS MATERIALS INVENTORY ROUTING FORM

## PHYSICAL HAZARDS

MATERIAL	CLASS	DESCRIPTION	PERMIT AMOUNTS	EXEMPT AMOUNTS STORAGE	EXEMPT AMOUNTS USE CLOSED – vapors are not liberated	EXEMPT AMOUNTS USE OPEN – vapors are liberated	HAVE AMOUNTS THAT REQUIRE A PERMIT?	HAVE ABOVE EXEMPT AMOUNTS?
CRYOGENIC, OXIDIZING (Can support or accelerate combustion of other materials)	Definition: A liquid having a boiling point lower than -150°F at 14.7 (psia).	Examples: fluorine, nitric oxide and oxygen.	> 10 gallons inside or > 50 gallons outside	45 gallons	45 gallons	10 gallons	NO <input type="checkbox"/> YES <input type="checkbox"/>	NO <input type="checkbox"/> YES <input type="checkbox"/>
CRYOGENIC Physical or Health Hazard			Any Amount - inside or outside	Not Limited	Not Limited	Not Limited	NO <input type="checkbox"/> YES <input type="checkbox"/>	Not Limited
EXPLOSIVES	Examples: dynamite, black powder, pellet powder, initiating explosives, detonators,	safety fuses, squibs, detonating cord, igniter cord, igniters and display fireworks, 1.3G (Class B, Special)	Any amount.	1 pound (liquid or solid)	0.25 pounds (liquid or solid)	0.25 pounds (liquid or solid)	NO <input type="checkbox"/> YES <input type="checkbox"/>	NO <input type="checkbox"/> YES <input type="checkbox"/>
FLAMMABLE GAS	<b>Gaseous</b> Def: A material which is a gas at 68°F or less at 14.7 psia of pressure which: 1. Is ignitable at 14.7 psia when in a	mixture of 13 % or less by volume with air; or 2. Has a flammable range at 14.7 psia with air of at least 12 %, regardless of the lower limit.	> 200 cubic feet at NTP	1000 cubic feet	1000 cubic feet	N/A	NO <input type="checkbox"/> YES <input type="checkbox"/>	NO <input type="checkbox"/> YES <input type="checkbox"/>
FLAMMABLE GAS	<b>Liquefied</b> Def: A liquefied compressed gas which, under a charged pressure,	is partially liquid at a temperature of 68°F and which is flammable.	> 200 cubic feet at NTP	30 pounds	30 pounds	N/A	NO <input type="checkbox"/> YES <input type="checkbox"/>	NO <input type="checkbox"/> YES <input type="checkbox"/>
FLAMMABLE SOLID	Def: A solid, other than a blasting agent or explosive, that is capable of causing fire through friction, absorption or moisture, spontaneous chemical change, or retained heat from manufacturing or	processing, or which has an ignition temperature below 212°F or which burns so vigorously and persistently when ignited as to create a serious hazard.	> 100 pounds	125 pounds	125 pounds	25 pounds	NO <input type="checkbox"/> YES <input type="checkbox"/>	NO <input type="checkbox"/> YES <input type="checkbox"/>
ORGANIC PEROXIDE	UNCLASSIFIED DETONABLE	Def: Are capable of detonation. These peroxides pose an extremely high explosion hazard through rapid explosive decomposition.	Any amount.	1 pound (liquid or solid)	0.25 pounds (liquid or solid)	0.25 pounds (liquid or solid)	NO <input type="checkbox"/> YES <input type="checkbox"/>	NO <input type="checkbox"/> YES <input type="checkbox"/>

# HAZARDOUS MATERIALS INVENTORY ROUTING FORM

## PHYSICAL HAZARDS

MATERIAL	CLASS	DESCRIPTION	PERMIT AMOUNTS	EXEMPT AMOUNTS STORAGE	EXEMPT AMOUNTS USE CLOSED – vapors are not liberated	EXEMPT AMOUNTS USE OPEN – vapors are liberated	HAVE AMOUNTS THAT REQUIRE A PERMIT?	HAVE ABOVE EXEMPT AMOUNTS?
ORGANIC PEROXIDE	I	Def: Those formulations that are capable of deflagration but not detonation.	Any amount.	5 pounds (liquid or solid)	1 pound (liquid or solid)	1 pound (liquid or solid)	NO <input type="checkbox"/> YES <input type="checkbox"/>	NO <input type="checkbox"/> YES <input type="checkbox"/>
ORGANIC PEROXIDE	II	Def: Those formulations that burn very rapidly and that pose a moderate reactivity hazard.	Any amount.	50 pounds (liquid or solid)	50 pounds (liquid or solid)	10 pounds (liquid or solid)	NO <input type="checkbox"/> YES <input type="checkbox"/>	NO <input type="checkbox"/> YES <input type="checkbox"/>
ORGANIC PEROXIDE	III	Def: Those formulations that burn rapidly and that pose a moderate reactivity hazard.	> 1 gallon liquid or 10 pounds solid	125 pounds (liquid or solid)	125 pounds (liquid or solid)	25 pounds (liquid or solid)	NO <input type="checkbox"/> YES <input type="checkbox"/>	NO <input type="checkbox"/> YES <input type="checkbox"/>
ORGANIC PEROXIDE	IV	Def: Burn in same manner as ordinary combustibles with minimum reactivity hazard.	> 2 gallons liquid or 20 pounds solid	Not Limited	Not Limited	Not Limited	NO <input type="checkbox"/> YES <input type="checkbox"/>	Not Limited
OXIDIZER	4	Def: An oxidizer that can undergo an explosive reaction due to contamination or exposure to thermal or physical shock.  In addition, the oxidizer will enhance the burning rate and cause spontaneous ignition of combustibles.	Any amount.	1 pound (liquid or solid)	0.25 pounds (liquid or solid)	0.25 pounds (liquid or solid)	NO <input type="checkbox"/> YES <input type="checkbox"/>	NO <input type="checkbox"/> YES <input type="checkbox"/>
OXIDIZER	3	Def: An oxidizer that will cause a severe increase in the burning rate of combustible materials with which it comes in contact or that will undergo vigorous self-sustained decomposition due to contamination or exposure to heat.	> 1 gallon liquid or 10 pounds solid	10 pounds (liquid or solid)	2 pounds (liquid or solid)	2 pounds (liquid or solid)	NO <input type="checkbox"/> YES <input type="checkbox"/>	NO <input type="checkbox"/> YES <input type="checkbox"/>
OXIDIZER	2	Def: An oxidizer that will cause a moderate increase in the burning rate or that causes spontaneous ignition of combustible materials with which it comes in contact.	> 10 gallons liquid or 100 pounds solid	250 pounds (liquid or solid)	250 pounds (liquid or solid)	50 pounds (liquid or solid)	NO <input type="checkbox"/> YES <input type="checkbox"/>	NO <input type="checkbox"/> YES <input type="checkbox"/>
OXIDIZER	1	Def: An oxidizer whose primary hazard is that it slightly increases the burning rate but which does not cause spontaneous ignition when it comes in contact with combustible material.	> 55 gallons liquid or 500 pounds of solid	4,000 pounds (liquid or solid)	4,000 pounds (liquid or solid)	1,000 pounds (liquid or solid)	NO <input type="checkbox"/> YES <input type="checkbox"/>	NO <input type="checkbox"/> YES <input type="checkbox"/>
OXIDIZING GAS	GASEOUS LIQUIFIED	Def: A gas that can support and accelerate combustion of other materials.	> 504 cubic feet at NTP	15 gallons liquid or 1,500 cubic feet gas	15 gallons liquid or 1,500 cubic feet gas	N/A	NO <input type="checkbox"/> YES <input type="checkbox"/>	NO <input type="checkbox"/> YES <input type="checkbox"/>
PYROPHORIC	N/A	Def: A chemical with an autoignition temperature in air, at or below a temperature of 130°F.	Any amount.	4 pounds (liquid or solid) and 50 cubic feet gas	1 pound (liquid or solid) and 10 cubic feet gas	0	NO <input type="checkbox"/> YES <input type="checkbox"/>	NO <input type="checkbox"/> YES <input type="checkbox"/>

# HAZARDOUS MATERIALS INVENTORY ROUTING FORM

## PHYSICAL HAZARDS

MATERIAL	CLASS	DESCRIPTION	PERMIT AMOUNTS	EXEMPT AMOUNTS STORAGE	EXEMPT AMOUNTS USE CLOSED – vapors are not liberated	EXEMPT AMOUNTS USE OPEN – vapors are liberated	HAVE AMOUNTS THAT REQUIRE A PERMIT?	HAVE ABOVE EXEMPT AMOUNTS?
UNSTABLE (REACTIVE)	4 – This class includes materials that are sensitive to mechanical or localized thermal shock at normal temperature and pressures.	Def: A material, other than an explosive, which in the pure state or as commercially produced, will vigorously polymerize, decompose, condense or become self-reactive and undergo other violent chemical changes, including explosion, when	Any amount.	1 pound (liquid or solid) and 10 cubic feet gas	0.25 pounds (liquid or solid) and 2 cubic feet gas	0.25 pounds (liquid or solid)	NO <input type="checkbox"/> YES <input type="checkbox"/>	NO <input type="checkbox"/> YES <input type="checkbox"/>
UNSTABLE (REACTIVE)	3 – This class includes materials that are sensitive to thermal or mechanical shock at elevated temperatures and pressures.	Exposed to heat, friction or shock, or in the absence of an inhibitor, or in the presence of contaminants, or in contact with incompatible materials.	Any amount.	5 pounds (liquid or solid) and 50 cubic feet gas	1 pound (liquid or solid) and 10 cubic feet gas	1 pound (liquid or solid)	NO <input type="checkbox"/> YES <input type="checkbox"/>	NO <input type="checkbox"/> YES <input type="checkbox"/>
UNSTABLE (REACTIVE)	2- This class includes materials that can undergo chemical change with rapid release of energy at normal temperatures and pressures, and that can undergo violent chemical change at elevated temperatures and pressures.		> 5 gallons liquid or 50 pounds solid and Any amount gas	50 pounds (liquid or solid) and 250 cubic feet gas	50 pounds (liquid or solid) and 250 cubic feet gas	10 pounds (liquid or solid)	NO <input type="checkbox"/> YES <input type="checkbox"/>	NO <input type="checkbox"/> YES <input type="checkbox"/>
UNSTABLE (REACTIVE)	1 – Materials that in themselves are normally stable but which become unstable at elevated temperatures and pressure.		> 10 gallons liquid or 100 pounds solid	Not Limited	Not Limited	Not Limited	NO <input type="checkbox"/> YES <input type="checkbox"/>	Not Limited
WATER REACTIVE	3 – Materials that react explosively with water without requiring heat or confinement.	Def: A material that explodes; violently reacts; produces flammable, toxic or other hazardous gases; or evolves enough heat to cause self-ignition or ignition of nearby combustibles upon exposure to water or moisture.	Any amount.	5 pounds (liquid or solid)	5 pounds (liquid or solid)	1 pound (liquid or solid)	NO <input type="checkbox"/> YES <input type="checkbox"/>	NO <input type="checkbox"/> YES <input type="checkbox"/>
WATER REACTIVE	2 – Materials that may form potentially explosive mixtures with water.		> 5 gallons liquid or 50 pounds solid	50 pounds (liquid or solid)	50 pounds (liquid or solid)	10 pounds (liquid or solid)	NO <input type="checkbox"/> YES <input type="checkbox"/>	NO <input type="checkbox"/> YES <input type="checkbox"/>
WATER REACTIVE	1 – Materials that may react with water with some release of energy, but not violently.		> 55 gallons liquid or 500 pounds solid	Not Limited	Not Limited	Not Limited	NO <input type="checkbox"/> YES <input type="checkbox"/>	Not Limited

# HAZARDOUS MATERIALS INVENTORY ROUTING FORM

## HEALTH HAZARDS

MATERIAL	CLASS	DESCRIPTION	PERMIT AMOUNTS	EXEMPT AMOUNTS STORAGE	EXEMPT AMOUNTS USE CLOSED – vapors are not liberated	EXEMPT AMOUNTS USE OPEN – vapors are liberated	HAVE AMOUNTS THAT REQUIRE A PERMIT?	HAVE ABOVE EXEMPT AMOUNTS?
CORROSIVE	N/A	Def: A chemical that causes visible destruction of, or irreversible alterations in, living tissue by chemical action at the point of contact.	> 55 gallons liquid or 1000 pounds solid 200 cubic feet gas at NTP	5,000 pounds solid, 500 gallons liquid, and 810 cubic feet gas	5,000 pounds solid, 500 gallons liquid, and 810 cubic feet gas	1,000 pounds solid or 100 gallons liquid	NO <input type="checkbox"/> YES <input type="checkbox"/>	NO <input type="checkbox"/> YES <input type="checkbox"/>
HIGHLY TOXIC	N/A	Def: A material which produces a lethal dose or lethal concentration. <b>Lethal dose or concentrations established in accordance with CFR 29.</b>	Any amount.	10 pounds (liquid or solid) or 20 cubic feet gas	10 pounds (liquid or solid) 20 cubic feet gas	3 pounds (liquid or solid)	NO <input type="checkbox"/> YES <input type="checkbox"/>	NO <input type="checkbox"/> YES <input type="checkbox"/>
TOXIC	N/A	Def: A material which produces lethal dose or a lethal concentration. <b>Lethal dose or concentrations established in accordance with CFR 29.</b>	> 10 gallons liquid or 100 pounds solid and any amount gas	500 pounds (liquid or solid) or 810 cubic feet gas	500 pounds (liquid or solid) or 810 cubic feet gas	125 pounds (liquid or solid)	NO <input type="checkbox"/> YES <input type="checkbox"/>	NO <input type="checkbox"/> YES <input type="checkbox"/>

## MATERIALS OR OPERATIONS REQUIRING SPECIAL HANDLING

MATERIAL	CLASS	DESCRIPTION	PERMIT AMOUNTS	REQUIRES SPECIALTY INSPECTION	HAVE AMOUNTS THAT REQUIRE A PERMIT?	HAVE AMOUNTS THAT REQUIRE SPECIALTY INSPECTION?
AEROSOL PRODUCTS	<b>LEVEL 2 OR LEVEL 3</b> Def: Level 2 - aerosol products are those with a total chemical heat of combustion that is greater than 8,600 Btu/lb., but less	than or equal to 13,000 Btu/lb. Level 3 - those with a total chemical heat of combustion that is greater than 13,000 Btu/lb.	> 500 lbs. Net Weight	Amounts exceeding: 2,500 lbs. – Level 2 1,000 lbs. – Level 3 2,500 lbs. Of Level 2 and 3	NO <input type="checkbox"/> YES <input type="checkbox"/>	NO <input type="checkbox"/> YES <input type="checkbox"/>
COMBUSTIBLE FIBERS	<b>LOOSE BALED</b> Def: Combustible fibers include readily ignitable and free burning fibers such as cocoa fiber, cloth, cotton,	excelsior, hat, hemp, henequen, istle, jute, kapok Oakum, rags, sisal, Spanish moss, straw, tow, wastepaper or other like materials.	> than 100 cubic feet	> 100 cubic feet loose and > than 1,000 cubic feet baled	NO <input type="checkbox"/> YES <input type="checkbox"/>	NO <input type="checkbox"/> YES <input type="checkbox"/>
MAGNESIUM	<b>OPERATION</b> To melt, cast, heat-treat or grind more than 10 pounds.	Def: The pure metal and alloys, of which the major part is magnesium.	Operation with > 10 pounds	> 125 pounds storage > 25 pounds in open use (dust or powder produced)	NO <input type="checkbox"/> YES <input type="checkbox"/>	NO <input type="checkbox"/> YES <input type="checkbox"/>

# HAZARDOUS MATERIALS INVENTORY ROUTING FORM

## MATERIALS OR OPERATIONS REQUIRING SPECIAL HANDLING

MATERIAL	CLASS	DESCRIPTION	PERMIT AMOUNTS	REQUIRES SPECIALTY INSPECTION	HAVE AMOUNTS THAT REQUIRE A PERMIT?	HAVE AMOUNTS THAT REQUIRE SPECIALTY INSPECTION?
ORGANIC COATINGS	PRODUCTION More than one gallon of an organic coating in one day.	Def: A liquid mixture of binders such as alkyd, nitrocellulose, acrylic or oil, and flammable and combustible solvents such as hydrocarbon, ester, ketone or alcohol, which, when spread in a thin film, convert to a durable protective and decorative finish.	Production > 1 gallon in a day	All Organic Coating Manufacture	NO <input type="checkbox"/> YES <input type="checkbox"/>	NO <input type="checkbox"/> YES <input type="checkbox"/>
PYROXYLIN PLASTICS	OPERATION Storage or handling of more than 25 pounds of cellulose nitrate (pyroxylin) plastics and any assembly or manufacture of articles involving pyroxylin plastics.	Def: Plastic substances, materials or compounds with cellulose nitrate as a base, by whatever name known, in the form of blocks, sheets, tubes or fabricated shapes.	Storage or handling > 25 pounds and any assembly or manufacture.	> 125 pounds storage or > 25 pounds with operations that produce dusts, powders, shavings, chips, turnings, etc.	NO <input type="checkbox"/> YES <input type="checkbox"/>	NO <input type="checkbox"/> YES <input type="checkbox"/>

I have filled out the information on this form to the best of my knowledge for the referenced location in accordance with how I intend to occupy the same.

Project Name: \_\_\_\_\_ Address \_\_\_\_\_

Responsible Party \_\_\_\_\_ Title or Affiliation \_\_\_\_\_  
(Print name legibly) (Please print legibly)

Responsible Party Signature \_\_\_\_\_ Date \_\_\_\_\_

### DEPARTMENTAL USE ONLY

PROJECT NUMBER \_\_\_\_\_

ROUTING INFORMATION: HAZMAT INSPECTIONS YES  NO