



**WORCESTER FIRE DEPARTMENT APPLICATION FOR PERMIT:
LABORATORY USING CHEMICALS**


Application for: The handling or storage of chemicals in laboratory buildings, laboratory units, and laboratory work areas whether located above or below grade, per Massachusetts Comprehensive Fire Safety Code, 527 CMR 1.00: Ch.26 (Laboratories Using Chemicals), section(s) 26.2, 61.1.2, 61.5.3.3.1, 63.1.2, 66.1.5, & 69.1.2. The scope of 527 CMR 1.00 includes, but is not limited to, the following in accordance with M.G.L. c. 22D and M.G.L. c. 148 and as prescribed by M.G.L. c. 143 § 96.

Massachusetts Comprehensive Fire Safety Code, 527 CMR 1.00, based on the 2012 edition of NFPA® 1.

ADDRESS WHERE ACTIVITY IS TO BE CONDUCTED (INCLUDE NAME OF BUSINESS, STREET ADDRESS & ZIP CODE).	
NAME OF OWNER	
PHONE NUMBER, OWNER	
NAME OF 24/7 EMERGENCY CONTACT	
PHONE NUMBER OF 24/7 EMERGENCY CONTACT	

ADDITIONAL REQUIRED DOCUMENTATION	
<input type="checkbox"/> COMPLETED FIRE PREVENTION FORM FP-006, APPLICATION FOR STANDARD PERMIT. CLICK LINK HERE FOR FP-006 FORM. <input type="checkbox"/> CERTIFICATE, AND/OR LICENSE ISSUED UNDER M.G.L. C. 148 § 13 (AS APPLICABLE). <input type="checkbox"/> FLOOR PLANS/SITE PLANS (IF REQUIRED). <input type="checkbox"/> CHECK IF APPROVED FLAMMABLES CABINETS, GAS CABINETS, AND/OR EXHAUSTED ENCLOSURES IN PLACE. <input type="checkbox"/> CHECK IF LARGEST SIZE VESSEL INVOLVED IN HAZARDOUS MATERIALS PROCESS EXCEEDS 2.5 GALLONS. IF BOX IS CHECKED, INCLUDE FIRE PREVENTION FORM FP-003, APPLICATION FOR PERMIT TO PROCESS HAZARDOUS MATERIAL. <input type="checkbox"/> CHECK BOX IF BIO-SAFETY LAB	<input type="checkbox"/> CHECK BOX IF INDOOR STORAGE FLAMMABLE LIQUIDS > 5 GAL. OR > 25-GAL COMBUSTIBLE LIQUIDS. <input type="checkbox"/> CHECK BOX IF LABORATORY OVEN, INDUSTRIAL OVEN AND/OR FURNACE IN USE ON PREMISES. INDICATE CLASS OF OVEN: CLASS A <input type="checkbox"/> CLASS B <input type="checkbox"/> CLASS C <input type="checkbox"/> CLASS D <input type="checkbox"/> <input type="checkbox"/> CHECK BOX IF CHEMICALS/SUBSTANCES IN INVENTORY CLASSIFIED AS DIV 1.1 THRU 1.6 EXPLOSIVES. <input type="checkbox"/> OCCUPANCY PERMIT (INCLUDE COPY). <input type="checkbox"/> INCLUDE SAFETY DATA SHEETS FOR TRADE NAME AND/OR PROPRIETARY SUBSTANCES. <input type="checkbox"/> CHECK IF AUTOMATIC SPRINKLER SYSTEM IN PLACE & INCLUDE COPY OF LAST INSPECTION.


LEVEL 1 <input type="checkbox"/> LEVEL 2 <input type="checkbox"/> LEVEL 3 <input type="checkbox"/> LEVEL 4 <input type="checkbox"/>	<input type="checkbox"/> CHECK IF BULK, OUTDOOR, ABOVE-GROUND STORAGE OF COMPRESSED GASES, AND/OR CRYOGENICS ON SITE.
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WFD COMBINED FLAMMABLES & HAZARDOUS MATERIALS INVENTORY SUBMISSION FORM					PAGE ____
NAME OF BUSINESS & ADDRESS			EMERGENCY FACILITY COORDINATOR/CONTACT PERSON NAME: PHONE #		
ROOM OR LAB NUMBER, INCLUDING FLOOR & OPERATOR NAME	NAME OF CHEMICAL, HAZARDOUS SUBSTANCE, OR FLAMMABLE LIQUIDS, GASES and BRIEF DESCRIPTION OF LOCATION IN ROOM	CHEMICAL ABSTRACT SERVICE (CAS) NUMBER	HAZARDOUS PROPERTIES and PHYSICAL FORM (Liquid, solid, gas; color, odor, and any other identifying characteristics). From the GHS on the material's SDS, <u>not</u> DOT category.	NFPA 704 EXAMPLE: 	AMT IN U.S. UNITS (GAL, LBS, OZ, ETC.)

All fields must be typed, not handwritten (transcription mistakes can change everything in chemistry).

Inventories may be submitted in Excel or Word formats, or in the format provided (previous page) and should be submitted electronically to the Hazmat Code Enforcement Officer (see email address below). The form on page 2 is provided for reference, as a format example, or it can be used for the submission.

EXAMPLE INVENTORY SUBMISSION FORMAT (see previous page for blank Inventory Submission form):

WFD COMBINED HAZARDOUS INVENTORY SUBMISSION FORM					
NAME OF BUSINESS & ADDRESS			UNIVERSITY LABS – 555 SECOND ST, WORCESTER		
ROOM OR LAB NUMBER, INCLUDING FLOOR & OPERATOR NAME	NAME ¹ OF CHEMICAL, HAZARDOUS SUBSTANCE, OR FLAMMABLE LIQUIDS, GASES	CHEMICAL ABSTRACT SERVICE (CAS) NUMBER	HAZARDOUS PROPERTIES ² and PHYSICAL FORM (liquid, solid, gas; color, odor and any other identifying characteristics)	NFPA 704 ³	AMOUNT IN INVENTORY
ROOM 122	SULFURIC ACID, 92% ⁴ LOCATED: northeast corner, inside building, corrosives storage/scrubber room.	7664-93-9	CORROSIVE WATER-REACTIVE OXIDIZER REACTS EXPLOSIVELY ON CONTACT WITH WATER PHYSICAL FORM: colorless, oily liquid		100 gal

Instructions for submitting applications:

1. Contact the Hazardous Materials Code Enforcement Officer for directions, requirements, and guidance.
2. Applications must also include completed FP-006 form, Standard Application for Permit and page 1 of this document. This is to establish the applicant’s information. Actual applications are generated by the Hazardous Materials Code Enforcement Officer/AHJ.
3. An inventory of all hazardous materials on site is required (including flammable liquids and gases). ‘Hazardous Materials’ are defined as all materials in inventory for which the user is required by OSHA to keep a Safety Data Sheet on. The exception being cleaning products in retail sizes—facilities are not

¹ Include common names, also-known-as, and for commercial products any identifying numbers that differentiate between concentrations, etc.

² Not limited to DOT classification. See chemical/hazardous materials/flammables SDS for all GHS hazard classifications.

³ Required when chemical/hazardous materials/flammables inventory exceeds 50-line items. See SDSs for NFPA 704 values.

⁴ Concentration. Concentration in many cases will affect hazard class, restrictions, and requirements.

required to submit cleaning supplies unless in they are in bulk, exceeding 5 gallons per container. As stated above, the inventory must contain:

- The chemical name
 - Brief description of location
 - Chemical Abstract Service number,
 - Hazardous properties of said chemicals (not limited to DOT classification—all GHS properties), and brief description of physical form (liquid, solid, gas; color, odor and any other identifying characteristics)
 - NFPA 704 rating for each substance (required for inventories exceeding 50 line items)
 - The amount in inventory (if it fluctuates, then an educated guess as to the most that can be expected to be found on any given day).
4. Inventories are reviewed and requirements for permits are based on:
 - 527 CMR 1.00 which directs to NFPA 1, Tables 1.12.8(a), (b), (c), & (d)
 - quantity of chemical or substance
 - authorities, regulations, codes, standards, and accepted definitions
 - All hazardous properties (based on a comparison of information sources, i.e. CAMEO Chem, PubChem, SDS sheets, and other industry standard sources).
 5. NFPA 704s can be found on most Safety Data Sheets. Some may be found on CAMEO Chem and/or PubChem. Substances are evaluated for the appropriate 704 based on comparing reputable sources, and for the purposes of code, based on the most restrictive qualities.
 6. If your facility fits the definition of a Laboratory Using Chemicals, a Lab using Chems permit is required. If multiple labs are present in one building, or there are multiple buildings, and they present lab-typical hazards (i.e. no hazardous materials greater-than permit quantities, nor hazardous processes, nor flammable liquids and gases in place in excess of permit quantities), a single ‘umbrella’ permit may or may not be issued for all labs in the facility. Labs that have in excess of permit quantities of hazardous materials will require a Hazardous Materials Use and Storage permit in addition to the Labs Using Chems permit. Likewise, flammable liquids in excess of permit quantities will require a Flammables Liquids Use and Storage permit in addition to the aforementioned permits, as well as any permits required for hazardous processes, industrial stove and furnace permit, etc. Bulk storage of Compressed Gases and/or Cryogenic Liquids may or may not be permitted separately on a Compressed Gases/Cryogenics permit (depending on indoor or outdoor storage in ASTs, or salient issues that need to be formalized via permit. All of the aforementioned is at the discretion of the Authority Having Jurisdiction.
 7. The Hazmat Code Enforcement Officer will supply the applicant with the appropriate, actual permit applications after review.
 8. Applications must be taken to, or mailed to the Worcester Fire Department Fire Prevention Division at 25 Meade St. The fee per permit is \$50. Checks and credit cards are accepted. Checks must be made payable to ‘City of Worcester’.
 9. Accuracy in in completing these forms is vitally important and the sole responsibility of the user, as is a working knowledge of applicable regulations, codes, and standards pertaining to the use, storage, handling, and manufacturing involving hazardous materials.
 10. A Facility Emergency Coordinator must be named as emergency point-of-contact between responders and the facility. The Facility Emergency Coordinator is responsible for knowing:

- Chemical processes
- Properties of the chemicals
- Proper storage procedures
- First aid to initially treat exposure to chemicals in inventory
- Behavior of chemicals under release, and:
- Physical forms of the chemicals under release
- Weather conditions under which it/they were released
- Geographical area of impact
- Probable harm that will be caused
- Unusual reactions between chemicals in inventory
- Any special training and/or equipment needed by first responders to respond to their chemicals in inventory
- How much of each chemical may be present at particular time
- Any other info that might be pertinent to particular chemical.
- Knowing shipping routes & types of carriers.

Conditions of note regarding permits:

1.7.7.4.1 The applicant for any permit, certificate or license issued pursuant to the provisions of this Code or M.G.L. c. 148, or any person who seeks to renew or continue to hold such permit, certificate or license, shall be deemed to have consented to the inspection, at any reasonable hour, of any documents, premises, structure, marine vessel, building or vehicle reasonably associated with said permit, license or certificate, or application or renewal thereof, in order to confirm compliance with the requirements of this Code, M.G.L. c. 148 or other related law or regulation related to such permit, license or certificate.

1.12.2 Applications for permits shall be accompanied by such data as required by the AHJ and such fees as required by Massachusetts General Laws.

1.12.6.7 Any change that affects any of the conditions of the permit shall require a new or amended permit.

1.12.7.1 The AHJ shall be permitted to revoke or suspend a permit or approval issued by said AHJ if any violation of this Code or of M.G.L. c. 148 is found upon inspection or if any false statements or misrepresentations have been submitted in the permit application or plans on which the permit or approval was based.

1.7.8 Imminent Danger Conditions. Where conditions exist and are deemed to be an imminent danger by the AHJ, the AHJ shall have the authority to abate or require abatement of such conditions that are in violation of this Code or M.G.L. c. 148.

1.15.1.1 As permitted by other sections of this Code, the **AHJ shall be permitted to require a review by an approved independent third party⁵ with expertise in the matter**, to be reviewed at the submitter's expense.

1.15.1.2 The independent reviewer shall provide an evaluation and, if appropriate, recommend necessary changes of the proposed design, operation, process, or new technology to the AHJ.

⁵ **see also 60.8.2.5—Competent Professional:** A person who, based upon education, training, skill, experience or professional licensure or a combination thereof, has a specialized knowledge beyond that of an average person, about risk assessment, process hazard analysis, and/or process safety management principles, for the process or processes being evaluated.

1.15.1.3 The AHJ shall be authorized to require design submittals to bear the stamp of a registered design professional.

1.15.1.4 The AHJ shall make the final determination as to whether the provisions of this Code have been met.

The purpose of these regulations is to provide basic requirements for the protection of life and property through prevention and control of fires and explosions involving the use of chemicals in laboratory-scale operations. Its requirements are designed to control hazards and protect personnel from the toxic, corrosive, or other harmful effects of chemicals to which personnel might be exposed as a result of fire or explosion and to achieve a comprehensive laboratory fire prevention and protection program to prevent injury or death to occupants and emergency response personnel.