# Seattle Fire Prevention Division

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# **User's Guide: Hazardous Materials Inventory Statements**

# **Section 1: Fire Code Requirements**

Where required by the *fire code official*, an application for, or renewal of, a permit shall include a HMIS. The HMIS shall include the following information:

- 1. Location where stored or used
- 2. Hazard classification
- 3. Product name.
- 4. Component.
- 5. Chemical Abstract Service CAS number.
- 6. Quantities:
  - a. In use, Open
  - b. In use, Closed
  - c. Storage
- 7. Container
- 8. Physical State

In the city of Seattle, new permits with the following permit codes will require an HMIS to be submitted at the time the permit is applied for:

3602	Drycleaners
4501	Limited Spray Finishing
4502	Spray Finishing Process/Non-Marine
4503	Spray Finishing Process/Non-Marine/Above Permit Quantities
4504	Marine Spray Finishing Process/Below Permit Quantities
4505	Marine Spray Finishing Process/Above Permit Quantities
4507	Combustible Powder Finishing/ Above Permit Quantities
7402	Medical Gas
7904	Bulk Plant or Terminal
801 Series	Variety of Hazardous Gases/Liquids/Solids
8002	Laboratories

# Section 2: How to Complete and Submit the HMIS Form to the Seattle Fire Department

Completed HMIS's should be submitted along with your permit applications in person, by mail, or by email (preferred) to <a href="mailto:permits@seattle.gov">permits@seattle.gov</a>. Materials must be reported separately for each control area. The following guidelines are provided to assist you in completing a Hazardous Materials Inventory Statement HMIS.

### **Column 1: Location Where Stored or Used**

Identify the control area, or if it is a group H occupancy, provide the classification, such as H-2, H-3, etc...

#### Column 2: Hazard Class - Abbreviation

The hazard class e.g. flammable liquid, corrosive, oxidizer shall be based on the classification system provided in the current Seattle Fire Code SFC See SFC Appendix E.

Abbreviations for each hazard class are presented in Section 4 of this document.

#### Column 3: Product Name

Provide the common trade name e.g. Chlorox of the hazardous material.

### Column 4a and 4b: Components and Concentration

Provide the chemical name and the concentration of the material. If the material is a mixture, provide the three 3 major components constituents of the material and the concentration of each component.

### Column 5: Chemical Abstract Service CAS Number

The Chemical Abstract Service CAS registry number is a unique number assigned to a material prior to manufacturing. These numbers may be obtained from the manufacturer of the material and should be identified on the Safety Data Sheet SDS for the product. For mixtures, list CAS Numbers of three major components, if available.

#### Column 6: Quantities

List the materials by weight or volume. All materials shall be listed in either metric or imperial measurements. Quantities must be listed for the following types of use and storage:

a) IN USE OPEN: Process or use with vapors escaping to the atmosphere

b) IN USE CLOSED: No vapors escaping to the atmosphere.

c) STORAGE: Stored only NOT in use open or in use closed

### Column 7: Container >55 gallon

If product container, vessel or tank could exceed 55 gallons, indicate "yes" in the column.

### **Column 8: Physical State**

Note whether material is Solid, Liquid or Gas

Refer to Appendices E and H of the Seattle Fire Code for more information or contact the Special Hazards Unit of the FMO for assistance by calling 206-386-1450

### Section 3: HMIS Definitions and Reference Sheet

### **Definitions**

**Control Area:** Spaces within a building where quantities of hazardous materials not exceeding the *maximum allowable* quantities per control area are stored, dispensed, used or handled. See also the definition of "Outdoor control area."

# Flammable and Combustible Liquids

	Hazard	Flash	Boiling
	Class	Point	Point
Flammable Liquids	Class I-A	Less than 73° F	Less than 100° F
	Class I-B	Less than 73° F	Greater than or equal to 100° F
	Class I-C	Greater than or equal to 73° F and less than 100° F	
Combustible Liquids	Class II	Greater than or equal to 100° F and less than 140° F	
	Class III-A	Greater than or equal to 140° F and less than 200° F	
	Class III-B	Greater than or equal to 200° F	

# **Section 4: Hazard Class Abbreviations for the HMIS**

# 1. Explosives/Blasting Agents

EX 1.1

EX 1.2

EX 1.3

EX 1.4

EX 1.5

EX 1.6

# 2. Compressed Gases

CFLG	Compressed Flammable Gas	(Acetylene, CO, Ethane, LPG)
COxG	Compressed Oxidizing Gas	(Oxygen, Ozone, Chlorine)
CCG	Compressed Corrosive Gas	(Ammonia, Fluorine)
CHTG	Compressed Highly Toxic Gas	(Arsine, Cyanogen)
CTxG	Compressed Toxic Gas	(Chlorine, Phosgene)
CIG	Compressed Inert Gas	(Argon, Helium, Nitrogen)
CPy G	Compressed Pyrophoric Gas	(Diborane, Phosphine)
CUG	Compressed Unstable Gas	(Butadiene, Ethylene Oxide)

# 3. Flammable/Combustible Liquids

# a. Flammable Liquids

FL 1A	Class 1-A Flammable Liquid	(Acetyldehyde, Ethyl Ether)
FL 1B	Class 1-B Flammable Liquid	(Gasoline, MEK, Laquer Thinner)

<sup>\*</sup>For Examples, refer to Appendix E of 2012 Seattle Fire Code

FL 1C Class 1-C Flammable Liquid (IVI-XVIEHE, P-XVIE	FL 1C	Class 1-C Flammable Liquid	(M-xylene, P-xylene)
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# b. Combustible Liquids

C 2	Class 2 Combustible Liquid	(Fuel Oil, Naptha)
C 3A	Class 3A Combustible Liquid	(Some Lubricating Oils)
C 3B	Class 3B Combustible Liquid	(Waste Oil, Motor Oil, Mineral Oil)

# 4. Flammable Solids

FLS Cellulose Nitrate, Magnesium, Sulfur

# 5. Combustible Dusts/ Powders

CDUST Wood Sawdust, Flour, Coal

# 6. Combustible Fibers

CFIB Combustible Fiber

# 7. Oxidizers Gases, Liquids and Solids

OXY4	Class 4 Oxidizer
OXY3	Class 3 Oxidizer
OXY2	Class 2 Oxidizer
OXY1	Class 1 Oxidizer

# 8. Organic Peroxides Liquids, Pastes, Solids

Unclassified Organic Peroxide
Class 5 Organic Peroxide
Class 4 Organic Peroxide
Class 3 Organic Peroxide
Class 2 Organic Peroxide
Class 1 Organic Peroxide

# 9. Pyrophoric Materials Gases, Liquids, Solids

**PYRO** 

### **10.** Unstable Reactive Materials

UR4	Class 4 Unstable
UR3	Class 3 Unstable
UR2	Class 2 Unstable
UR1	Class 1 Unstable

### 11. Water Reactive Materials

WR3 Class 3 Water Reactive
WR2 Class 2 Water Reactive
WR1 Class1 Water Reactive

12. Cryogenic Fluids Flammable, Oxidizing, Corrosive, Inert, Highly toxic

CRY Cryogenic Fluids

# MATERIALS THAT POSE A HEALTH HAZARD

13. Highly Toxic Materials Gases, Liquids, Solids

HTM Highly Toxic Materials

14. Toxic Materials Gases, Liquids, Solids

TOX

15. Corrosives Acids, Bases, Other

COR