

How to Prepare an HMIS for the Kent Fire Department RFA

Introduction

The International Building and Fire Codes require you to provide a Hazardous Materials Inventory Statement (HMIS), so that building and fire plan reviewers can determine what code provisions apply to your project.¹ Without the HMIS, the Kent Fire Department RFA (KFDRFA) can't review your plans. Also, the HMIS will assist Fire Inspectors to ensure that your business is in compliance with the International Fire Code.

These instructions will provide the KFDRFA with a simple HMIS, which will be used as a preliminary screening tool. Depending on your situation, it is possible a more detailed HMIS will be required. Factors that could necessitate the detailed HMIS include:

1. Quantity of hazardous material
2. Multiple storage and use locations in a building or outside
3. Types of hazardous materials
4. Lack of a fire sprinkler system

If a detailed HMIS is needed, you will be required to obtain the services of a third party technical expert.² We have found this saves time and prevents frustration for you and KFDRFA plan reviewers. The KFDRFA has a list of qualified third parties, or you can submit the name of a third party expert for review and approval by the KFDRFA. At a minimum, this expert shall be certified in the International Fire Code by the International Code Council.

Company Information Sheet

Please complete the Company Information Sheet provide in these forms.

Save this file as "Company Name – Information Sheet"

HMIS Inventory Report

Next please complete the HMIS Inventory Report, which is located on the Excel spread sheet under forms. The report is provided to you as an Excel file, which you can fill in. Here are the steps to complete the inventory report: (*Examples of generic chemicals/products are in Red, and trade named products in Green*)

Tip: In Excel work in "Normal View" and then under the view tab, use the "Freeze Panes" option.

1. Obtain Material Safety Data Sheets (MSDS) or Safety Data Sheets (SDS) for all of your chemicals.

As of June 1, 2015 OSHA's Hazard Communication Standard will require that all chemical products have an SDS in the uniform format. MSDS will be obsolete.

2. In Column 1 of the inventory report, list the name of each product.

3. In Column 2, the C.A.S. Number(s) must be listed. This should be listed in Section 2 of the MSDS or Section 3 of an SDS. **For common chemicals/products such as Gasoline, you may list**

¹ IBC 414.1.3

² IBC 414.1.3

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the common CAS number. For products with trade names you must list all the different component chemicals and their CAS numbers. List them in order from most to least concentration. If there are many (more than 5) list only the top five components by concentration. See the examples provided on the spread sheets.

4. In Column 3, fill in the storage location as either the word “**IN**” for inside or the word “**OUT**” for outside.
5. In Column 4, enter the letter **X** if the product container or tank is greater than 55 gallons.

We will now start determining the products Hazard Classes. We have provided the Hazard Classes of many common products in these forms in the document “Classification of Common Products”.

We will use a standard 16 section MSDS or SDS to classify your chemical/products. If you don't have a standard 16 section MSDS / SDS contact your supplier or manufacturer and request one.

6. In Column 5, go through the next Hazard Class steps, if the chemical/product doesn't fit any of the Classes, enter **NR** (Not Regulated).
7. In Column 6, in MSDS sections 5 or 9 / SDS Section 9, it will tell you the products Flash Point and Boiling Point. From the guide below enter the appropriate abbreviation. (enter the Flash Point & Boiling Point in Column 13)
 1. Flash point less than 73 deg F, and a boiling point less than 100 deg F = **F1A**.
 2. Flash point less than 73 deg F and a boiling point that is equal to or greater than 100 deg F = **F1B**.
 3. Flash point that is equal to or greater than 73 deg F and less than 100 deg F = **F1C**.
 4. Flash point equal to or greater than 100 deg F and less than 140 deg F = **C2**.
 5. Flash point equal to or greater than 140 deg F and less than 200 deg F = **C3A**.
 6. Flash points equal to or greater than 200 deg F = **C3B**.
 7. Flammable gas = **FLG**.
 8. Flammable solid, Ignition temperature less than 212°F = **FLS**.
8. In Column 7, in MSDS / SDS section 10, if it says the product is strongly reactive with water enter **WR2**. If it says the product will react explosively with water enter **WR3**.
9. In Column 8, in MSDS / SDS section 10, if it says the product is a strong oxidizer, enter **OX2**. If this is an oxidizer gas, enter **OXG**.
10. In Column 9, in MSDS / SDS section 10, if it says the product can spontaneously decompose giving off heat, toxic or flammable gas, enter **UR2**.
11. In Column 10, in MSDS section 3 / SDS section 2, look for the words corrosive, burn, or caustic. If any of those words are present enter **COR**.
12. In Column 11, we are determining if a product is toxic or highly toxic. Use MSDS / SDS section 11. (enter the LD50 in Column 13)

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- a. If the product is a solid or liquid and has an LD50 less than 500 mg/kg (rat) enter **TX**.
 - b. If the product is a gas and has an LD50 less than 2000ppm (rat), enter **TX** (the only common toxic gas is chlorine).
13. In Column 12, in MSDS / SDS sections 1-3, if it says the product is an organic peroxide, enter **OP2**.
14. In Columns 14-16 enter the quantity of the product stored at your facility. If you buy gas products by the pound, your supplier can help you obtain the cubic feet.

Save this file as "Company Name – HMIS Inventory"

HMIS Summary Report

A blank copy of the HMIS Summary Report is also found in the Excel spread sheet under forms.
(Examples of how to enter the data from the HMIS Inventory Report are shown in red. You should erase the red entries once you understand how to complete the summary report.)

1. Open the HMIS Summary Report.
2. The total amount of each hazard class on the HMIS Inventory Report has to be calculated. For instance if you have 10 products that are classified as either F1B or F1C, calculate the total gallons of these products and enter the number in the inventory amount area, in the liquids column adjacent to F1B & F1C.
3. Some products will add to the totals of more than one hazard class. For instance, sulfuric acid 90% is classified as water reactive, corrosive and toxic. As a result, it will add to the total amount of water reactive products, corrosive products, and toxic products.
4. Fill in the inventory amount for each of the hazard classes you have on your HMIS Inventory Report.

Save this file as "Company Name – HMIS Summary"

HMIS Submittal

Email the HMIS Inventory Report, HMIS Summary Report, and Company Information Sheet to FirePrevention@KentFireRFA.org.

Please include the Fire Inspector's name in the email (It's listed on your Inspection Notice); this will ensure a timely response.

Please fill in the email subject line as "HMIS – Company Name".

If you have questions you may call 253-856-4400 for assistance, please identify that you are completing a HMIS.

Thank you,

Kent Fire Department Regional Fire Authority
Fire Prevention Division