



## Hazardous Materials Inventory Statement (HMIS)



Generally, laboratories, high tech processes, paint shops and stores, automotive repair shops and stores, warehouses, and retail stores to mention a few, have hazardous chemicals. The type and quantity of chemicals used or stored need to be assessed using HMIS in conjunction with Chapter 50 and other chemical resources.

The information derived from an HMIS will assist in determining the correct occupancy classification, method and location of storage, design criteria for spill and secondary containment, construction requirements, and ventilation needs.

If there is any possibility that hazardous chemicals will be in the building or used in a process within the building, the Fire Department will request an HMIS and possibly a hazardous materials management plan.

It is recommended that extra information be provided on the HMIS, such as the NFPA 704 codes for each chemical.

### Provide Correct Information:

1. Hazard class, column 1 of the HMIS is often not completed correctly. Many chemicals are multi-hazard class chemicals and every hazard class must be provided. For example, Trimethyl Phosphite is not just a corrosive acid, but also a combustible liquid II, other health hazard, and a class 1 water reactive. Include all classes for each chemical on the HMIS.
2. Chemical name, column 3 of the HMIS; fire department requires the chemical concentration (%) to accompany each chemical and provide the chemical name not the formula.
3. The HMIS must be formatted to reflect separate chemical information and totals for each area or room, not a consolidated report.
4. For each storage or use area or room, provide accumulative totals for each hazard class and for each respective chemical state solid, liquid, and gas.

### Sample: Location: Room 275

### USE: Storage for manufacturing process

| 1                      | 2           | 3                     | 4                 | 5                 | 6    | 7      | 8        | 9                 | 10        | 11       | 12                       |
|------------------------|-------------|-----------------------|-------------------|-------------------|------|--------|----------|-------------------|-----------|----------|--------------------------|
| Hazard Class           | Trade Name  | Chem Name, & %        | CAS, Abstract No. | State (G,S, or L) | Open | Closed | Quantity | Unit (lbs or gal) | Strg Code | NFPA     | Location of Chem in Bldg |
| Flam. Liq 1B, Irritant | Isopropanol | Isopropal Alco. 99%   | 67-63-0           | PL                | X    |        | 300      | GA                | L-1-4     | 1-3-0    |                          |
| Flam Liq 1B, OHH, WR-2 | TMB         | Trimethyl Borate 100% | 121-43-7          | PL                |      | X      | 30       | GA                | L-2-4     | 2-3-1-WR |                          |
| <b>Totals</b>          |             |                       |                   |                   |      |        |          |                   |           |          |                          |
| Flam Liq 1B            |             |                       |                   |                   |      |        | 330      |                   |           |          |                          |
| Irritant               |             |                       |                   |                   |      |        | 300      |                   |           |          |                          |
| OHH                    |             |                       |                   |                   |      |        | 30       |                   |           |          |                          |
| WR-2                   |             |                       |                   |                   |      |        | 30       |                   |           |          |                          |

5. Declare if the chemical in use is in an open or closed condition, column 6 and 7.

#### Use (material) is:

1. Placing a material into action, including solids, liquids, and gases, or,
2. Making a material available for service by opening or connecting anything utilized for confinement of material including solids, liquids, and gases.

**Use, closed system,** is the use of a solid or liquid hazardous material in 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. All compressed gases meet this criteria. Examples of closed systems for solids and liquids include reaction process operations and product conveyed through a piping system into a closed vessel, system or piece of equipment.

**Use, open system,** is use of a solid or liquid hazardous material in 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, and dip tank and plating operations.

6. **Use the blank form of the sample:** found on the next page. Pages following the blank form are master worksheets for Health and Physical Hazards. The forms provide exempt amount information, transfer that information to the blank form. Legends for columns 5-State, 9-Unit, 11-Storage, 12 -NFPA are on the Health Hazard Worksheet.



## HMIS Report



Business Name: \_\_\_\_\_ Occupancy Classification/s: \_\_\_\_\_ Sprinklered: Y N

Business Contact: \_\_\_\_\_ Phone: \_\_\_\_\_

Building Permit No: \_\_\_\_\_ or NA Report Prepared By: \_\_\_\_\_ Phone: \_\_\_\_\_

**Note:** Specific chemical quantities may require a Hazardous Materials operations permit. You will be contacted if your business meets the permit criteria. This form is also used when completing the application for the permit.

| 1                                                    | 2          | 3              | 4                 | 5                  | 6        | 7          | 8        | 9                 | 10           | 11   | 12                                   |
|------------------------------------------------------|------------|----------------|-------------------|--------------------|----------|------------|----------|-------------------|--------------|------|--------------------------------------|
| Hazard Classes                                       | Trade Name | Chem Name, & % | CAS; Abstract No. | State (G, S, or L) | Open Use | Closed Use | Quantity | Unit (lbs or gal) | Storage Code | NFPA | Location of Chemical in the Building |
|                                                      |            |                |                   |                    |          |            |          |                   |              |      |                                      |
|                                                      |            |                |                   |                    |          |            |          |                   |              |      |                                      |
|                                                      |            |                |                   |                    |          |            |          |                   |              |      |                                      |
|                                                      |            |                |                   |                    |          |            |          |                   |              |      |                                      |
|                                                      |            |                |                   |                    |          |            |          |                   |              |      |                                      |
|                                                      |            |                |                   |                    |          |            |          |                   |              |      |                                      |
| <b>Totals Below</b> (for each separate hazard class) |            |                |                   |                    |          |            |          |                   |              |      |                                      |
|                                                      |            |                |                   |                    |          |            |          |                   |              |      |                                      |
|                                                      |            |                |                   |                    |          |            |          |                   |              |      |                                      |
|                                                      |            |                |                   |                    |          |            |          |                   |              |      |                                      |
|                                                      |            |                |                   |                    |          |            |          |                   |              |      |                                      |
|                                                      |            |                |                   |                    |          |            |          |                   |              |      |                                      |
|                                                      |            |                |                   |                    |          |            |          |                   |              |      |                                      |
|                                                      |            |                |                   |                    |          |            |          |                   |              |      |                                      |
|                                                      |            |                |                   |                    |          |            |          |                   |              |      |                                      |
|                                                      |            |                |                   |                    |          |            |          |                   |              |      |                                      |

**Columns:** 1- Hazard Class: some examples: Oxidizer 1, 2, 3, or 4 (Ox-2); Flammable Liquid 1A, 1B, or 1C; Toxic; Highly Toxic (H-tox); Corrosive (Cor); Water Reactive 1, 2, or 3 (WR-3); Pyrophoric (Pyro); Unstable Reactive 1, 2, 3, or 4 (UR-3)

**5-State:** description of each material, more than one code may apply

**9-Unit:** LB = pounds, GA = gallons, CF = cubic feet

P = pure, M = mixture, S = solid, L = liquid, G = gases

**10-Storage: type, pressure, and temperature:** put combined code in this order on form

**Type:** A = above ground tank, B = below ground tank, C = tank in building, D = steel drum, E = plastic/nonmetal drum, F = can, G = carboy, H = silo, I = fiber bag, J = bag, K = box, L = cylinder, M = glass bottle/jug, N = plastic bottle/jug, O = tote bin, P = tank wagon, Q = rail car, R = other

**Pressure:** 1 = ambient (atmospheric), 2 = greater than ambient (atmospheric), 3 = less than ambient (atmospheric)

**Temperature:** 4 = ambient, 5 = greater than ambient, 6 = less than ambient but not cryogenic, 7 = cryogenic conditions

**11-NFPA:** Health: 0-4, Fire: 0-4, Reactivity: 0-4, Special: ~~W~~ (water reactive), OX (oxidizer), COR (corrosive), Example: 2-3-0-~~W~~