Different Hazard Classifications Tools and Symbols

GHS, NFPA, and HMIS are different systems with different purposes to categorize hazards. They are not interchangeable.

This is a tool to help people who work with chemicals to understand the difference between these systems.

**GHS** - Used in the new UN regulation to help manufacturers classify materials and assign pictograms, signal words, and hazard statements. There is no universal scale and number of classifications is NOT uniform throughout each category.

![GHS - Hazard Pictograms and Related Hazard Classes](image)

**NFPA** - Is a fire protection warning system designed to help first responders with conditions of fire, chemical spills, and other emergency situations. The four parts of the diamond are for health (blue), fire (red), reactivity (yellow), and special hazards (white). The scale is 0 to 4 (least hazardous to most hazardous).

![NFPA - Fire Protection Warning System](image)
**HMIS** - Is a system designed for day-to-day employees to recognize hazards. The major differences are in the last two sections. The four parts of HMIS are health (blue), fire (red), physical hazard (orange), and personal protection (white). The scale is 0 to 4 (least hazardous to most hazardous).

In February 2013, an OSHA brief stated,

"Employers may continue to use ratings systems such as National Fire Protection Association (NFPA) diamonds or HMIS requirements for workplace labels as long as they are consistent with the requirements of the Hazard Communication Standard and the employees have immediate access to the specific hazard information [of the chemicals]. An employer using NFPA or HMIS labeling must, through training, ensure that its employees are fully aware of the hazards of the chemicals used."
# Comparison of NFPA 704 and Global Harmonized System (GHS)

<table>
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<tr>
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<th>NFPA 704</th>
<th>Global Hazmonized System (GHS)</th>
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<tbody>
<tr>
<td>Purpose</td>
<td>Provides basic information for emergency personnel responding to a fire or spill and those planning for emergency response.</td>
<td>Informs workers about the hazards of chemicals in workplace under normal conditions of use and foreseeable emergencies.</td>
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| Number System: NFPA Rating and OSHA’s Classification System | 0-4 0-least hazardous 4-most hazardous | 1-4 1-most severe hazard 4-least severe hazard  
*The Hazard category numbers are NOT required to be on labels but are required on SDSs in Section 2.  
*Numbers are used to CLASSIFY hazards to determine what label information is required. |
| Information Provided on Label |  
*Health-Blue  
*Flammability-Red  
*Instability-Yellow  
*Special Hazards*-White  
*OX Oxidizers  
W Water Reactives  
SA Simple Asphyxiants |  
*Product Identifier  
*Signal Word  
*Hazard Statement(s)  
*Pictogram(s)  
*Precautionary statement(s)  
*Name address and phone number of responsible party. |
| Health Hazards on Label | Acute (short term) health hazards ONLY. Acute health hazards are more typical for emergency response applications. Chronic health effects are not covered by NFPA 704. | Acute (short term) and chronic (long term) health hazards. Both acute and chronic health effects are relevant for employees working with chemicals day after day. Health hazards include acute hazards such as eye irritants, simple asphyxiants and skin corrosives as well as chronic hazards such as carcinogens. |
| Flammability/Physical Hazards on Label | NFPA divides flammability and instability hazards into two separate numbers on the label. Flammability in red section Instability in yellow section | A broad range of physical hazard classes are listed on the label including explosives, flammables, oxidizers, reactives, pyrophorics, combustible dusts and corrosives. |
2) Label using Appendix C |
| Other | The hazard category numbers found in section 2 of the HC2012 compliant SDSs are NOT to be used to fill in the NFPA 704 diamond. | Supplemental information may also appear on the label such as any hazards not otherwise classified, and directions for use. |

For more information:  
NFPA National Fire Protection Association  
www.nfpa.org I 800.344.3555  
OSHA Occupational Safety and Health Administration  
U.S. Department of Labor  
www.osha.gov I 800.321.OSHA (6742)  
NFPA.org/704  
www.osha.gov/or  
www.osha.gov/dsghazcom/index.html