Chapter 7 – Pollution Prevention and Hazardous Substances

Fact-sheet - How to undertake the hazard identification?

What is the objective?

The objective of the hazard identification is for the factory to:
- **Identify and be aware** of the hazards types and hazard levels of each chemical used on-site*
- **Take** the necessary control measures to store and handle the chemicals safely.

*Not all the chemicals are hazardous. Hazardous chemicals are defined as chemicals which have an inherent property to cause harm either to humans or the environment and/or cause damage through fire, explosion or through toxicity or corrosive properties.

How to achieve this objective?

**Step 1:** Create a template for the chemical hazard identification as per the model below.

**Step 2:** Fill-in the columns as per the example below:

<table>
<thead>
<tr>
<th>Area/Process</th>
<th>Chemical name/commercial name</th>
<th>Hazard symbols</th>
<th>R Phrases-Hazard Risk Statements</th>
<th>Hazard Type</th>
<th>Health</th>
<th>Environment</th>
<th>Health Control approach (Precautionary statements)</th>
<th>Storage safety measures</th>
</tr>
</thead>
<tbody>
<tr>
<td>Dyeing</td>
<td>Acetic acid</td>
<td>Flammable, Corrosive</td>
<td>H226: Flammable liquid and vapor, H314: Causes severe skin burns and eye damage</td>
<td>✓</td>
<td>✓</td>
<td></td>
<td>P280: Wear protective clothing, protective gloves, eye protection, face protection, P260: Do not breathe mist, vapors, spray</td>
<td>P216: Keep away from heat, sparks, open flames, hot surfaces - No smoking, P223: Keep container tightly closed</td>
</tr>
<tr>
<td>Dyeing</td>
<td>Disperse Yellow 3</td>
<td>Carcinogenic, irritant</td>
<td>H317: May cause an allergic skin reaction, H351: Suspected of causing cancer</td>
<td>✓</td>
<td></td>
<td></td>
<td>P280: Wear protective clothing, protective gloves, eye protection, face protection, P261: Avoid breathing dust/fumes/gas/mist/vapours/spray, P271: Use only outdoors or in a well-ventilated area</td>
<td>P403+233: Store in a well-ventilated place. Keep container tightly closed, P402: Store in a dry place</td>
</tr>
<tr>
<td>Fabric finishing</td>
<td>Fabric softener 1511</td>
<td>No symbol (not classified as hazardous)</td>
<td>H316: Causes mild skin irritation</td>
<td>✓</td>
<td></td>
<td></td>
<td>P262: Do not get in eyes, on skin, or on clothing.</td>
<td>P442: Store in a dry place</td>
</tr>
</tbody>
</table>

The hazard symbols and hazard statements are indicated both in the Safety Data Sheet (SDS) – section 2: Hazards identification - and on the chemical product label.

Based on the hazard statements number: H2XX: Physical, H3XX: Health, H4XX: Environment.

Precautionary statements are indicated in the SDS – section 2 & section 8: Exposure controls/ personal protection - and on the label.

Storage safety measures are indicated in the SDS – section 2 & section 7: Handling and storage – and on the label.

- **The manager** in charge of the chemical inventory should be as well in charge of the hazard identification; for each new chemical order received on-site, the hazard identification should be undertaken.

- **Make sure you get the complete SDS and label information** for each chemical from the chemical supplier since this will be your source of information to undertake the hazard identification.

Common non-compliances

Generic information provided in the hazard identification table

The factory doesn’t have the original complete SDS for all the chemicals used on-site so generic “health control approach” instructions were given such as “use mask, gloves, goggles and apron”. In this situation, workers might be forced to use PPE (Personal Protective Equipment) not adapted to the chemicals they are handling.

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1 This template is an example but the factory can refer to other templates; the point is to highlight types, natures and levels of hazards and what safety measures should be taken to reduce the risk of incident and workers' exposure to hazards.