化學品的使用非常廣泛，不論在工業、商業、農業、學校或家居都會使用到化學品。

Chemicals are being used extensively in our daily life. They are existing in industries, commercial sectors, agriculture, schools, domestic, etc.

常用的化學品 Common Use Chemicals

各行各業會使用不同的化學品，而一般人經常會接觸的包括：溶劑（天拿水）、殺蟲劑、除草劑、漂白剤、通渠剤、消毒剤、硝酸、硫酸、亞硝酸染料及黏合剤等。

Different chemicals are being used in the industries. Chemicals that are commonly used by most of the workers include solvents (thinner), paints, pesticides, herbicides, bleaches, drain cleaners, disinfectants, nitric acids, sulphuric acids, ammonia dyes, adhesives, etc.
有關化學品的常用法例  Legislations on Chemicals

香港海關  Custom and Excise Department
化學品管制條例  一  化學品管制規例
Control of Chemicals Ordinance – Control of Chemicals Regulations

消防處  Fire Services Department
危險品條例  Dangerous Goods Ordinance

勞工處  Labour Department
工廠及工業經營（危險物質）規例
F&IU (Dangerous Substances) Regulations
工廠及工業經營（可致癌物質）規例
F&IU (Carcinogenic Substances) Regulations

漁農自然護理署  Agriculture, Fisheries and Conservation Department
除害劑條例  Pesticides Ordinance

衛生署  Department of Health
輻射條例  一  輻射（管制放射性物質）規例
  一  輻射（管制輻照儀器）規例
Radiation Ord. – Radiation (Control of Radioactive Substances) Regulations
  – Radiation (Control of Irradiating Apparatus) Regulations

環境保護署  Environmental Protection Department
廢物處理（化學廢物）（一般）規例
Waste Disposal (Chemical Waste) (General) Regulations
有毒化學品管制條例
Hazardous Chemicals Control Ordinance
揮發性有機化合物規例
VOC (Volatile Organic Compounds) Regulation

職業安全健康局  Occupational Safety & Health Council
化學廢物  Chemical Wastes

化學廢物和化學品一樣要特別處理、存放及運輸。環境保護署的《廢物處理（化學廢物）（一般）規例》規定所有化學廢物的容器都須貼上如右圖所示的指定格式和說明之標籤。

Chemicals and chemical wastes should be properly handled, stored and transported. The Waste Disposal (Chemical Waste) (General) Regulation enforced by the Environmental Protection Department requires all chemical waste containers to have its labels as illustrated.

危險化學品進入身體途徑
Dangerous Chemicals’ Entry Routes to Human Body

大部分化學品進入人體後會危害健康。進入的途徑有下列幾個:

Most chemicals create health hazards after they entered the human body. Here are their entry routes:

具有腐蝕性的酸及鹼則可透過接觸皮膚及眼睛造成傷害。

Acids or alkalis are corrosive to the skin and can damage the eye even on contact.
化學品安全
Chemical Safety

化學品的危害 Hazards of Chemicals

1. 窒息
   (例如：二氧化碳)
   Asphyxiatio (e.g. CO₂)

2. 刺激性或腐蝕性
   (例如：氨氣(亞摩尼亞)、氯氣、強酸或鹼)
   Irritant or Corrosive (e.g. Ammonia, Chlorine, Strong Acid or Alkaline)

3. 易燃或爆炸性
   (例如：丙酮(亞司通)、乙醚(依打)、石油氣、天拿水)
   Flammable or Explosive (e.g. Acetone, Ether, Petroleum Gas, Thinner)

4. 麻醉性
   (例如：哥羅芬、三氯乙烯)
   Narcotic (e.g. Chloroform, Trichloroethylene)

5. 肝和腎的損害 (例如：四氯化碳、錳)
   Damage of Liver and Kidney (e.g. Carbon tetrachloride, Cadmium)

6. 白血病 (例如：苯)
   Leukemia (e.g. Benzene)

7. 肺塵埃沉著病 (例如：矽、石棉)
   Pneumoconiosis (e.g. Silicon, Asbestos)

8. 致癌物 (例如：石棉、鋅酸鹽)
   Carcinogenic (e.g. Asbestos, Sodium Dichromate)
化學品安全資料表  Material Safety Data Sheet

Chemical labels provide fundamental information only. Material Safety Data Sheets (MSDS) should be collected from the suppliers to obtain further information of chemical hazards.

1. 產品識別 Product identification
提供製造商名稱、地址和化學物的商品名及原名。
Provide name and address of manufacturer and trade name and chemical name of the chemical.

2. 有害成份 Hazardous Ingredients
列出各類有害的成份。
List all hazardous ingredients.

3. 物理性質 Physical Properties
說明了化學物質的外觀、氣味、沸點、揮發率及熔點等數據。
Describe the appearance, smell, boiling point, vaporization rate and melting point, etc. of the chemical.

4. 火警及爆炸資料 Fire & Explosion Data
說明化學品的火警數據，包括閃點、自燃點和燃爆域，以及列出適用的滅火物質等。
Describe the fire data of the chemical, i.e. flash point, self-ignition point and explosion concentration, and list the suitable fire extinguishing substance.

5. 健康危害 Health Hazard
列舉出過量接觸後的徵狀和急救的程序。
Detail the symptoms after over exposure and the first aid procedure.

6. 反應性 Reactivity
說明該化學物質是否穩定及與其他物質的配合禁忌。
Describe the chemical’s stability and substances that are incompatible.

7. 洩漏或溢出程序 Procedure for leakage
包括清理洩漏化學物及廢料處理的方法。
Include the procedure for treating leakage and chemical waste.

8. 專屬性防護資料 Specific Protection Info.
包括應使用的工程控制方法及個人防護裝備。
Include the necessary engineering controls and personal protective equipment.

9. 注意事項 Point to Note
為安全使用及存放提供指示。
Provide instructions for safe use and storage.

10. 生態學資料 Ecology Information
說明該化學品的生態毒性和其它環境危害。
Describe the ecotoxicity of the chemical and how it harms the environment.

11. 棄置方法 Disposal Method
說明該化學品的妥善處置方法。
Describe the disposal method of the chemicals.
化學品標籤 Chemical Labels

第295章 《危險品條例》 Chapter 295 Dangerous Goods Ordinance

於2002年3月22日通過的《危險品(修定)條例》將危險化學品須按照《國際海運危險貨物規則》的規定分為下列9類:

The Dangerous Goods (Amendment) Ordinance classifies dangerous chemicals in accordance with the requirements of the《IMDG Code》into the following 9 classes:

<table>
<thead>
<tr>
<th>特性</th>
<th>類別</th>
</tr>
</thead>
<tbody>
<tr>
<td>爆炸品 Explosives</td>
<td>1</td>
</tr>
<tr>
<td>氣體 Gases</td>
<td></td>
</tr>
<tr>
<td>易燃氣體 Flammable gases</td>
<td>2.1</td>
</tr>
<tr>
<td>非易燃無毒氣體 Non-flammable, non-toxic gases</td>
<td>2.2</td>
</tr>
<tr>
<td>有毒氣體 Toxic gases</td>
<td>2.3</td>
</tr>
<tr>
<td>易燃液體 (在密封杯測試中，閃點低於攝氏61度) Flammable liquids (Flashpoint &lt; 61°C in closed-cup test)</td>
<td>3</td>
</tr>
<tr>
<td>易燃液體 (在密封杯測試中，閃點等如或高於攝氏61度) Flammable liquids (Flashpoint &gt; 61°C in closed-cup test)</td>
<td>3A</td>
</tr>
<tr>
<td>易燃固體 Flammable solids</td>
<td>4.1</td>
</tr>
<tr>
<td>可自燃的物質 Substances liable to spontaneous combustion</td>
<td>4.2</td>
</tr>
<tr>
<td>與水接觸後散發出易燃氣體的物質 Substances which, in contact with water, emit flammable gases</td>
<td>4.3</td>
</tr>
<tr>
<td>氧化物質 Oxidizing substances</td>
<td>5.1</td>
</tr>
<tr>
<td>有機過氧化物 Organic peroxides</td>
<td>5.2</td>
</tr>
<tr>
<td>有毒物質 Toxic substances</td>
<td>6.1</td>
</tr>
<tr>
<td>有毒及傳染性物質 Toxic and infectious substances</td>
<td>6.2</td>
</tr>
<tr>
<td>放射性物質 Radioactive materials</td>
<td>7</td>
</tr>
<tr>
<td>腐蝕品 Corrosive substances</td>
<td>8</td>
</tr>
<tr>
<td>雜類危險物質 Miscellaneous dangerous substances</td>
<td>9</td>
</tr>
<tr>
<td>獲豁免《危險品條例》第6至11條例規限的可能燃燒物品 Combustible goods exempted from Section 6 to 11 of the Ordinance</td>
<td>9A</td>
</tr>
</tbody>
</table>
化學品標籤 Chemical Labels

勞工處的《工廠及工業經營(危險物質)規例》
Factories and Industrial Undertakings (Dangerous Substances) Regulations

此法例將化學品的危害特性大致分類為7種，並設訂相應的危險標記代表每種危害，使人容易明白：

These regulations classify the dangerous characteristics of chemicals into seven categories. Each category has its specific symbol:

符合規格的標籤內容須有化學品的名稱、危險標記、危險情況和安全措施四項資料：

A proper chemical label should include the name of chemical, dangerous symbol, particular risks and safety precautions.

<table>
<thead>
<tr>
<th>物質名稱</th>
<th>Name of Substance</th>
</tr>
</thead>
<tbody>
<tr>
<td>松節油</td>
<td>Turpentine</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>標籤</th>
<th>Flammable</th>
<th>Harmful</th>
</tr>
</thead>
<tbody>
<tr>
<td>危險情況</td>
<td>Flammable, Harmful by inhalation, in contact with skin and if swallowed</td>
<td></td>
</tr>
<tr>
<td>安全措施</td>
<td>Keep away from sources of ignition - No Smoking</td>
<td></td>
</tr>
</tbody>
</table>

注意事項 Notes:

1. 標籤尺寸以容器的容量而有所區分，但標籤上須顯示的任何標記的尺寸都不應少於標籤面積的1/10，且無論如何不應少於100平方毫米。

   Size of label is depends on the volume of the container. The symbol show on the label should not be smaller than 1/10 of the size of label and 100mm².

2. 如化學品具有超過一種危險特性，標籤內可有兩個危險標記，如左圖示。

   If a chemical has two dangerous characteristics, its label should have two relevant symbols as shown.
一般安全守則 General Safety Rules

儲存 Storage

不可於太陽下直接暴曬化學品，應存放於陰涼通風處。
Do not exposure chemicals under sunlight. They should be stored in cool and well-ventilated place.

不應在工作地有放過量危險品，如有需要，可存於領有危險牌照的危險倉內。
Do not keep excessive chemicals in the workplace. They should be stored in the dangerous store with dangerous goods licence if necessary.

個人習慣 Behaviour

不要在儲存化學品或進行明火工作如焊接等的地方吸煙。
Never smoking at chemical storage places or working with fire, e.g. flame cutting.

處理化學品後一定要清洗雙手方可飲食。
After handling chemicals, do wash both hands before eating and drinking.

不要在儲存化學品的地方進食或預備食物。
Never eat or prepare food at the chemical storage places.

切勿將不相容物品一起存放。
Never store incompatible substances together.

要用合適的方法固定化學品後才可搬運，搬運時不要奔跑以免引致碰撞而傾倒化學品。
Use appropriate method to fix the chemical containers before transportation. Do not run when handling chemicals as collision will result in overturning of containers.
化學品安全 Chemical Safety

化學品處理 Handle of Chemicals

- 安全存放化學品。
  Store the chemicals safely.
- 使用化學品時要配戴合適的個人防護裝備。
  When using the chemical, wear personal protective equipment.
- 不要隨意將化學品混合。
  Do not mix chemicals if unnecessary.
- 遵守化學品標籤上的安全措施。
  Follow the safety procedures listed on the chemical labels.
- 不要隨意棄置化學品。
  Do not improperly dispose chemicals.
- 不要隨意將飲食器皿盛載化學品。
  Do not use food containers to store chemicals.

運輸 Transportation

- 不要大力搖動化學品，劇烈振動亦會令容器內化學品揮發產生過量壓力而洩出。
  Do not shake the chemicals. Vigorous vibration will cause chemicals to vaporize and result in leakage due to excessive pressure.
- 搬運化學品時盡量使用適當工具以防止傾倒而引致化學品外洩。
  Use appropriate tools for transporting chemicals to avoid leakage by overturning.
- 保持地面清潔以免搬運化學品時滑倒。
  Keep floor clean to prevent slip when handling chemicals.
警告附近人士。通知應急組或有需要時通知相關政府部門如消防處。
Warn nearby persons. Notify Emergency Response Team or notify related government department, e.g. Fire Service Department.

隔離現場或啟動疏散程序或緊急應變程序。
Isolate the scene or activate the evacuation procedure or activate the emergency plan.

由合適訓練者才可執行急救傷者。由合適訓練者才可執行處理洩漏。
First aid treatment for victims by the well trained person. Treatment for leakage by the well trained person.

制定應變計劃及安排訓練，讓員工清楚了解在意外發生時的應變計劃，這包括化學品洩漏時的處理方法。
Develop the contingency plan and provide training to allow employees to aware the emergency responses for accident. This include the responses for leakage of chemicals.
急救設施 First Aid Facilities

若身體意外地被有害化學品液體濺及，應即時用大量清水沖洗，並立即延醫診治。

In case the body is contacted with hazardous chemical accidentally, use large amount of water to wash the body and then receive hospital treatment immediately.
空氣監察和健康監察  
Air Monitoring and Health Surveillance

空氣監察可以了解員工吸入空氣中有害物質的濃度是否符合勞工處所提供的衛生標準，用作評估工作環境是否須要改善。

Air monitoring results can show whether the concentration of hazardous substances inhaled by workers exceeds the Occupational Exposure Limit as specified by the Labour Department.

生物監察可以了解員工由各個途徑吸入體內有害物質的份量有否超過限額，用作評估工作環境，個人操作方法和現行控制措施是否須要改善。

Health surveillance helps to understand whether the amount of hazardous chemicals entered workers' bodies exceed the acceptable limits. Results can be used for assessing the improvement needs of working environment, personal working method and existing control measures.

局部抽風系統  
Local Exhaust Ventilation

利用局部抽氣系統可避免吸入有害化學品。

Local exhaust ventilation can prevent the inhalation of hazardous chemicals.
個人防護裝備
Personal Protective Equipment

正確使用適當個人防護裝備，可避免受到化學品傷害。
Proper use personal protective equipment to avoid injured by chemicals

使用適當呼吸器具，可避免吸入有害化學品。
Use suitable respiratory protectors to avoid inhalation of hazardous chemicals.
預防及控制化學品危害
Prevention and Controlling of Chemical hazards

1. 使用較安全的物料來取代較危險的物料。
   Substitute dangerous materials by safer materials.

2. 將工序密封和自動化以減少員工面對的危害。
   Enclose and automate the work process to reduce the hazards encountered by the workers.

3. 弄濕物料，可以減少粉塵的產生和散播。
   Wet the materials to reduce the production and transmission of dust.

4. 利用稀釋性通風和局部排氣通風抽走有害化學品。
   Use dilution ventilation and local exhaust ventilation to exhaust hazardous chemicals.

5. 適當使用個人防護裝備。
   Use suitable personal protective equipment.

6. 加強工人教育和訓練。
   Enhance the education and training on workers.

7. 培養良好個人衛生，保持廠房整理。
   Promote good personal hygiene and maintain good housekeeping.

8. 使用正確化學品標籤。
   Use correct chemical labels.

9. 實施環境監察和個人監察。
   Implement environmental and personal monitoring.

10. 有需要時為員工進行體格檢查。
    Body checks on workers when necessary.