

# 化學品評估及分級管理工具箱

v2017

# 化學品評估及分級管理 宣導重點&策略

全面掌握、分層管理、多元評估、控制區分、科學為本  
事業單位可依企業規模選擇適用的工具進行評估及分級管理！



具GHS健康危害  
(19000種↑)

具容許暴露標準  
(491種)

應實施監測  
(91種)

中小企業：我國CCB工具、日本實施風險評估支援系統

大型企業：進階工具箱

英國COSHH要點、德國EMKG、新加坡SQRA、荷蘭Stoffenmanager、  
歐洲ECETOC TRA

從事特別危害健康作業之勞工人數100人以上，或總勞  
工人數500人以上：採樣分析或定量推估模式

依勞工作業環境監測實施辦法所定之監測及期程，實施  
暴露評估，必要時輔以其他半定量或定量評估模式或工  
具。

# 工具箱內容

- 英國物質健康危害控制要點（COSHH要點）
  - 德國工作場所危害物質管控計畫（EMKG）
  - 日本實施風險評估支援系統
- } 與ILO CCB相似
- 新加坡評估職業暴露有害化學品半定量方法（SQRA）
  - 荷蘭物質管理線上工具（Stoffenmanager）
  - 歐洲針對性風險評估（ECETOC TRA）

# 英國物質健康危害控制要點 (COSHH要點)

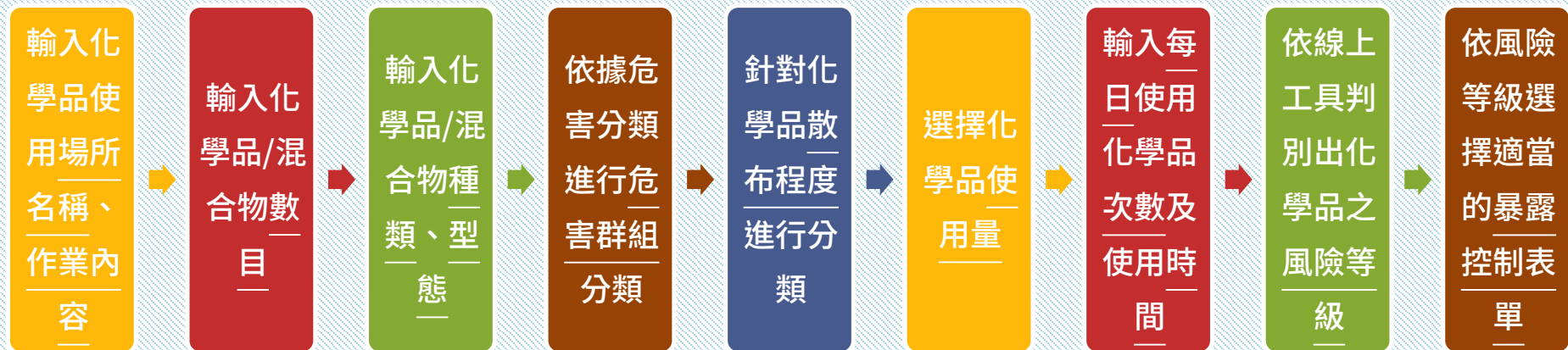
# 介紹

- 英國職業安全衛生署（HSE）所制定，為全球發展最早的化學品分級管理策略。
- 適用於化學品物理狀態為固體及液體之評估。
- 線上工具：
  - <http://www.hse.gov.uk/coshh/essentials/coshh-tool.htm>

# 所需參數及資料參考來源

屬性	參數	資料參考來源
危害	GHS危害分類	安全資料表 (SDS) #2
	或：歐盟R-phrase	安全資料表 (SDS) #2
暴露	化學品使用量	作業現場資訊
	固體粉塵度/液體揮發度	安全資料表 (SDS) #9
	使用頻率 (每日次數/時間)	作業現場資訊

# 方法流程/步驟



# 工具介面

## Worked example

### TOUGH LACQUER CO

The Tough Lacquer Co manufacture lacquers. They buy liquid citox from their supplier in drums. They transfer it from the drum, in a batch process, to a reactor containing resins where it gets mixed to make lacquers. They do this twice a day for a period of 2 hours each batch.

Extracts from the supplier's safety data sheet for citox are given below. The information is needed for the assessment. Not all safety data sheets look alike, but they should all use the same headings.

### Roundages Chemicals Ltd

20 February 1998  
Safety data sheet: Citox

#### 1 Identification of the preparation and company

Chemical name: Citox  
Application: Lacquer additive  
Supplier: Roundages Chemicals Ltd, King Street,  
Casterbridge WX1 2YZ  
Emergency Tel: (0123) 456 789

#### 9 Physical and chemical properties

Physical state: Liquid at normal temperatures  
Boiling point: 134°C  
Flashpoint: 36°C  
Flammability limits: 2.3-6.6%

#### 15 Regulatory Information

Ingredient name: Citox  
Content: 100%  
Health class: Xn, Xi  
Risk (R-phrases): R10, R21/22, R36/37/38

The hazard group is the chemical's potential to harm you. COSHH Essentials has worked out automatically that risk phrase R36/37/38 has the higher hazard group of C (R21/22 is B) and has therefore allocated citox to the higher group of C - harmful and irritating chemicals.

Hazard group S (for skin irritation) is also relevant and this appears in the text under the hazard bar.

Process → How Many → Chemical Name → Hazard → Form → How Much → Summary → Advice

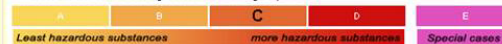
### HAZARD GROUP

Assessment code	RF12282656
Process name	Lacquer making
Task (1 of 1)	Transferring
Chemical name (1 of 1)	citox
State	Liquid
R-phrase numbers	R21/22, R36/37/38
Hazard group	C

You are using 1 chemical

Please read this information and then click 'Go' at the bottom of the page.

The chemical **citox** belongs to the hazard group : C



The chemical **citox** may also cause harm if in contact with skin or eyes.

**Warning :** The chemical you are using has been given the high hazard group of C. Before carrying on you may want to consider using a less harmful chemical.

- Please speak to your supplier to see if there is another chemical you can use which will do the job satisfactorily.
- You may want to use the chemical in a less harmful form, eg use pellets instead of powder.
- You may also want to think about changing the process, for example using less of the chemical or a lower process temperature.

This will reduce the risk of ill health to your workers and make what you have to do, simpler and cheaper.

You can find more information in [Seven steps to successful substitution of hazardous substances](#) (This is on the subscription area of hsdirect).

In some circumstances **experts** with detailed information on the chemical can override the hazard grouping. [Click here to do this](#)