PRESENTATION OF UIC TECHNICAL DOCUMENT "TOOL FOR ASSESSING THE RISKS CONNECTED WITH CHEMICALS"

Dr Patrick LEVY – RHODIA – 26 Quai Alphonse le Gallo – F- 92512 BOULOGNE BILLANCOURT CEDEX – Tél : 33 1 55 38 40 62 – Fax : 33 1 55 38 44 73

Marie-Hélène LEROY – Union des Industries Chimique (UIC) - Le Diamant A – F - 92909 PARIS LA DEFENSE CEDEX – Tél : 33 1 46 53 11 21 – Fax : 33 1 46 96 00 59

Drawn up by a UIC working party consisting of experts from companies in the chemical industry and representatives of UIC regional organisations frequently in contact with Small and Medium-sized companies, the tool for assessing the risks connected with chemicals"
is used to assess the chemical risks in a company which uses chemicals.

Taking as a starting point the statutory labelling (R phrases) of hazardous products as well as the safety data sheets, it is intended, amongst other things, to facilitate the risk assessments required by the regulations (dir 89/391/EEC and 98/24/EEC especially).

It is a tool for initial Risk Assessment which has been deliberately simplified, and which is designed to be accessible to all users of chemicals whatever their size and sector of activity.

After a brief methodological reminder, this document, available in French and in English, deals with the identification of hazards, then, one after another, reviews risk assessment:

- for safety (of a physico-chemical origin)
- for health at work (industrial hygiene)
- for the environment

This methodology aims to simplify the first screening of chemical risks and allows to put forward priorities (corrective or preventive actions, in-depth assessment…).

(See enclosed Powerpoint file)

Outil d'évaluation des risques liés aux produits chimiques

Tool to assess the risks linked with chemicals

UIC - October 1999

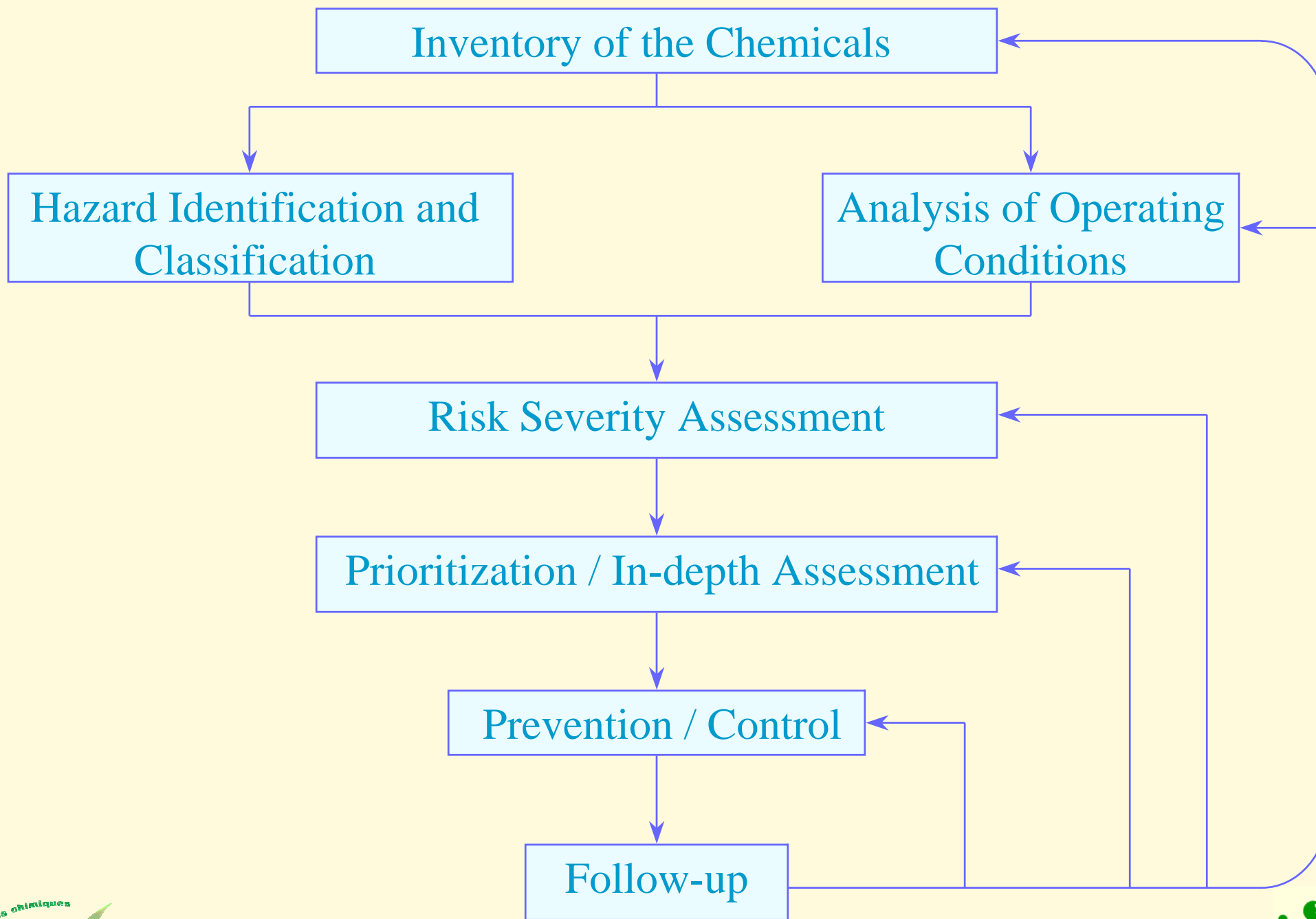✧ **simplified** technical document to help guide professionnal users of chemicals

⮡ small and medium size companies

⮡ companies with no «chemical culture»

✧ **involvement of the management** : the site officer is responsible for assessing and managing the safety of the chemicals that are **used on his site**

⮡ set priorities

⮡ involve several actors in the company

Inventory of the Chemicals

Hazard Identification and Classification

Analysis of Operating Conditions

Risk Severity Assessment

Prioritization / In-depth Assessment

Prevention / Control

Follow-up

PRODUCT INVENTORY

Products
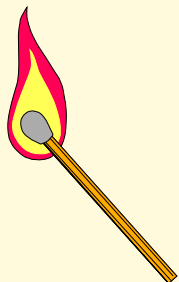
Safety Data Sheets

- quantities
- location

- supplier(s)
- date

➢ raw materials

➢ by-products

➢ maintenance products

➢ waste

➢ ...

HAZARD IDENTIFICATION AND CLASSIFICATION

3 hazard categories for substances or preparations :

LABEL

🔒 **physico-chemical** :
  explosive, oxydizing,
  highly flammable, very flammable, flammable.

🔒 **toxicological** :
  very toxic, toxic, harmful,
  corrosive, irritant, sensitizing,
  carcinogenic, mutagenic, reprotoxic.

🔒 **eco-toxicological** :
  dangerous for environment (aquatic, ozone, etc.)
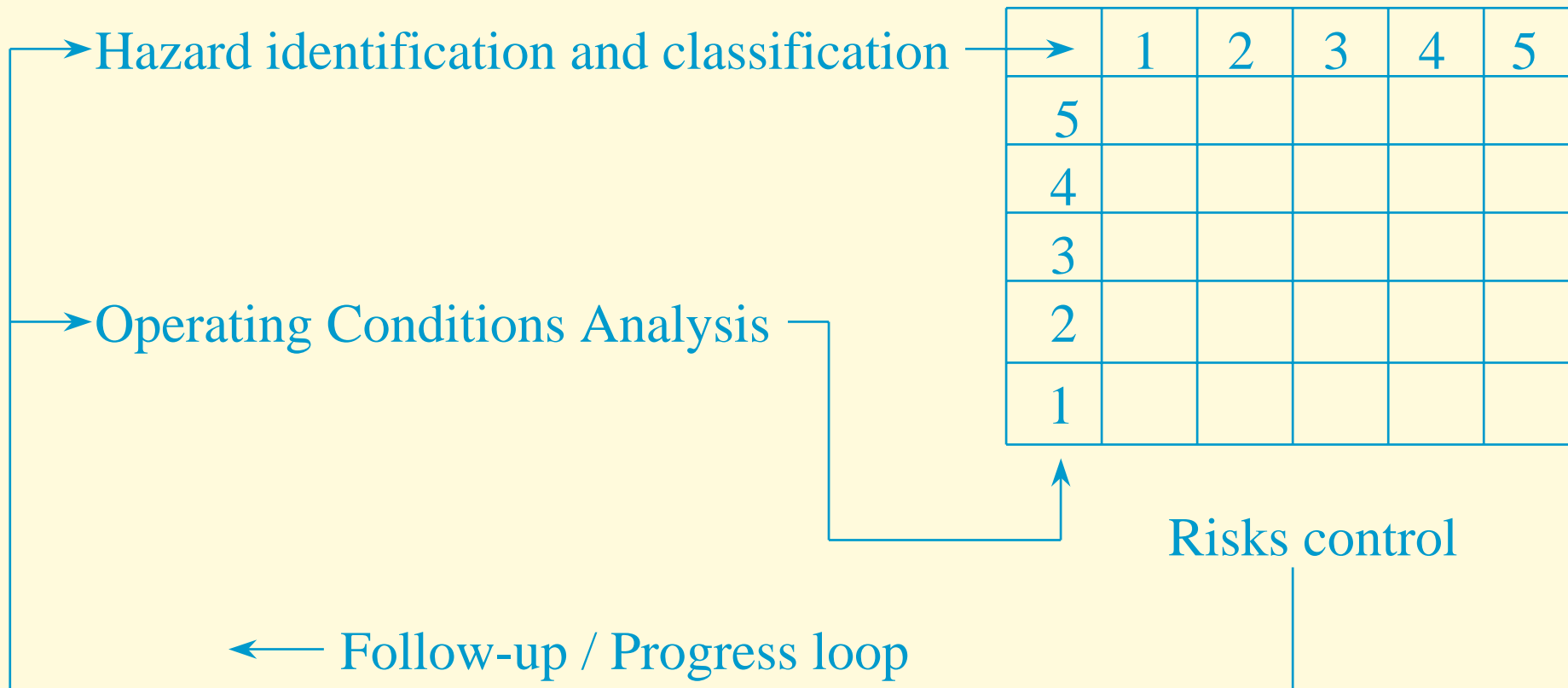
OPERATING CONDITIONS

SAFETY

⇨ Accident prevention
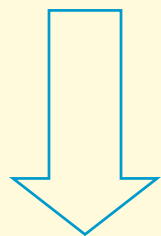
HEALTH

⇨ Prevention of occupational illnesses

ENVIRONMENT

⇨ Environmental protection

Hazard identification and classification →

	1	2	3	4	5
5					
4					
3					
2					
1					

Operating Conditions Analysis

Risks control

← Follow-up / Progress loop

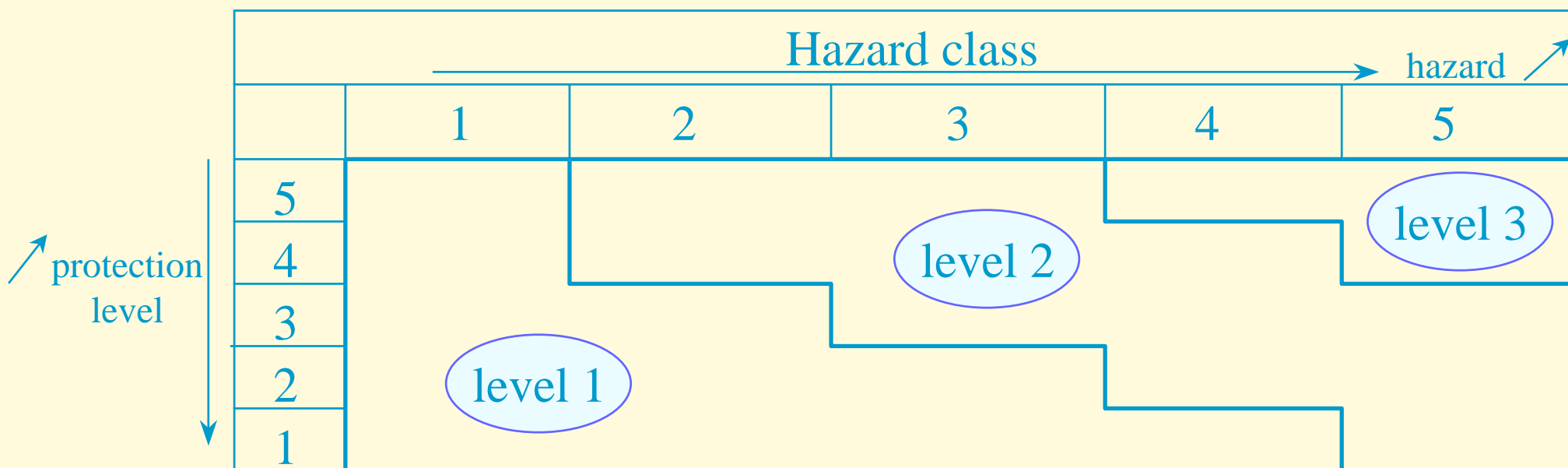Labelling according to regulations ⇨ R phrases indicating the hazard

⇩

R phrases are placed in four hazard classes 2 ⇨ 5

(Class 1 = not classified hazardous)

HEALTH AT WORK RISK ASSESSMENT

level 1 : low priority   **level 2** : medium priority   **level 3** : high priority

Hazard class → hazard ↗

		1	2	3	4	5

protection level ↓

| 5 |
| 4 |
| 3 |
| 2 |
| 1 |

level 1

level 2

level 3

5 no ventilation
4
3
2
1 closed system

PREVENTION - RISK CONTROL

→ collective protection

technical solutions

→ organisational measures

how to operate with the residual risk

→ individual / personal protection

✚ | Personnel information and training

| Medical surveillance

EXAMPLES OF CONTROL TOOLS

Risk category	Collective Protection	Individual Protection	Administrative and organisational measures
Physico-chemical	Grounding	Gloves	Operating conditions, Life cycle analysis, etc.
Health	Ventilation	Mask	
Environment	Retention area		

MANAGEMENT

✧ Audits

✧ Follow-up programme

✧ «Virtuous» cycle

✧ Benchmarking, external audit if / when internal and unbiased expertise is lacking, and communication

✧ Technological and Regulatory monitoring