



# SAFETY EQUIPMENTS FOR STORAGE AND SPILL CONTROL OF CHEMICALS

## GENERAL RULES:

All stored chemicals must be placed above a retention or spill pallet.  
Regulations change depending on where you store (industrial area, laboratories, ...) and what products you are storing (flammables, toxics, corrosives...).

## REGULATIONS:

The volume of retention of any storage of dangerous liquids that could pollute water and soil must be at least equal to the biggest following values :

### IN ITALY

- 100% of the biggest container
- 30% of the total volume stored

### IN GERMANY AND SWITZERLAND

- 100% of the biggest container
- 10% of the total volume stored (except for agriculture 50% of the total volume)

## SAFETY CONTAINERS

### INTRODUCTION:

Virtually every place of business, and even homeowners, have opportunity to use flammable or combustible liquids. Gasoline, chemicals, solvents, etc...are found in varying amounts and locations. Whereas these liquids are relatively commonplace, it is important to understand the dangers they present and the special storage and handling procedures required to ensure safe usage.

Moreover, transport of dangerous liquids require special protection and only UN agreed containers can ensure a high level of security. Safety containers differ from secure containers by the following safety equipments:

- An internal wire mesh flame arrester is fitted into the spout and prevents flames to enter into the container.
- A pressure relief prevents any risk of explosion.
- Normalised labels allow separating and recognizing the different products and therefore avoid possible risk of confusion.

Safety data sheets must also be close to the working place allowing the rescue team to work with efficiency.

### NORMALIZATION:

#### UN (United Nation):

The containers with UN label are certified for road transport of dangerous liquids.



#### FM (Factory Mutual):

Offers worldwide industrial and commercial product certification and testing services through its business unit FM Approvals. Worldwide recognized and respected, FM Approvals certification insures customers that a product or service has been objectively tested and conforms to the highest national and international standards.



### Summary

|  |                       |            |
|--|-----------------------|------------|
| Containment tank                                     |                       | Range BR   |
| Safety shelvings                                     |                       | Range R    |
| Pallets & Accumulation centers for spill containment | EPA-SPCC-NFPA-OSHA-UL | Range G    |
| Safety bottles                                       |                       | Range M    |
| Double-Use Container                                 | U.N.                  | Range K    |
| Safety Cans in steel and in HDPE                     | FM - OSHA - NFPA      | Range J    |
| Safety Cans in stainless steel                       | FM - U.N.             | Range S    |
| Secure cabinets for drums                            |                       | Range 14.F |