

## **IS - 46**

## How should we handle the TMAH splash more appropriately?

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With the rapid growing of advanced technology, the emerging hazardous chemicals brought into the manufacturing facilities almost day by day. Among the manufacturing activities, workers undoubtedly are potentially to be exposed to many toxic chemicals, whether it is deliberately or accidentally. Of which, many of those chemicals, we are not familiar with their natures, characters, toxicity and the methods of management in any emergent scenario of accidental exposures. Upon exposure, the chemical may get into our body through the route of inhalation, diffusion and skin penetration, which may result in an interference of our physiological function at any levels of sub-cellular, cellular, tissue as well as organ system, and subsequently a permanent disability or even death. Therefore, in order to minimize the hazardous health effect of chemical exposures upon accidental splash, the immediate onsite management such as decontamination and antidote use should be exercised without any delay.

Tetramethylammonium hydroxide (TMAH), with a PH of 13, is commonly used in photoelectric industry, has been reported of accidental deaths within an hour upon skin splash in occupational setting. We will take TMAH as an example, based on its pharmacodynamics and toxicokinetics, to elaborate the cutting edge methods of the onsite management principle of occupational chemical splash.