

PRELIMINARY RESULTS ABOUT THE USE OF EMERGENCY RINSING SOLUTIONS PREVIN[®] (DIPHOTERINE[®]) HEXAFLUORINE[®] IN CASE OF CHEMICAL SPLASHES IN A COMPANY.

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The use of corrosive chemical products, that can have a toxic activity, is frequent in the industrial sector. In the literature, the classical treatment water / gluconate for splashes with hydrofluoric acid, both corrosive and toxic with the fluoride ions, has sometimes showed its limits, with as results, after-effects that are sometimes invalidating, secondary care and very expensive days lost from work for the companies. The emergency rinsing of chemical splashes thanks to active rinsing solutions should permit to improve these results.

Method : In 1994, in a company from the metallurgic sector located in Germany, Previn[®] and Hexafluorine[®], emergency rinsing solutions of chemical splashes, were placed in the plant. The firm renounced to the former protocol water / gluconate and started a sensitisation campaign on the chemical risk, on the prevention and on the emergency procedures in case of chemical splashes. Previn[®] (equivalent of Diphotérine[®] in Germany) is a polyvalent emergency rinsing solution in case of chemical splashes on the skin or in the eyes. Hexafluorine[®] is an emergency rinsing solution, specific for cutaneous and ocular splashes due to hydrofluoric acid. From 1994 to 1998, each chemical splash was immediately rinsed with Previn[®] or Hexafluorine[®] on the place of the accident. A secondary rinsing was systematically made in the infirmary.

Results : During this study, 36 cases of chemical splashes were reported involving men aged 36±11 years. The results obtained are as follow :

Type of splash	Strong acid	Strong base	Hydrofluoric acid (including 5 at 40%)
Cutaneous	8	2	10
Cutaneous	11	4	1
First rinsing	Previn [®]	Previn [®]	Hexafluorine [®]
Secondary rinsing	Previn [®]	Previn [®]	Hexafluorine [®]
Days lost from work	Average = 0.1 day Standard deviation = 0.31	0	0

Conclusion : There were no after effects noticed, and no secondary care necessary for the 36 cases of rinsing after chemical splashes with Previn[®] or Hexafluorine[®]. A delay of days lost from work quasi non-existent was noticed in case of splashes with strong acids. No days lost from work were necessary in case of splashes in the eyes or on the skin with strong bases and hydrofluoric acid. The study we realised permitted to underline the interest of an active rinsing.

KEY WORDS : acid, base, hydrofluoric acid, Diphotérine, Hexafluorine