Volume 89/Supplement 1 - 2016

Journal of Biological Research

Bollettino della Società Italiana di Biologia Sperimentale

89th SIBS National Congress on Climate and Life

Ozzano dell'Emilia (BO), Italy, 1-2 December 2016

ABSTRACT BOOK

www.jbiolres.org

pagepress

RISK ASSESSMENT OF EXPOSURE TO CHEMICAL AGENTS IN THE WORKPLACE

F. Venturella*, C. Lanzalaco

Dipartimento Scienze e Tecnologie Biologiche Chimiche e Farmaceutiche, Università di Palermo, Palermo, Italy

**E-mail: fabio.venturella@unipa.it*

The study in question is the chemical risk assessment relating to chemicals used at the SERIMANT Military Authority of Palermo, Supplies and Maintenance Section, in order to ensure the protection of the safety and health of workers. Chemicals used in the barracks were analyzed; data collected anonymously from 32 male workers exposed to test substances for at least five years; their work tasks analyzed; established health and laboratory findings extrapolated from medical records of each worker, as well as search for specific representative metabolites of intoxication to the relevant substances; compared the different indicators of toxicity parameters and processed statistics. The levels of 1- hydroxypyrene in the urine of each exposed worker is significantly lower than the reference limit value, therefore, none of the workers show intoxication of Pyrene (IPA); the same can be said for Hippuric Acid, metabolite of Xylene and Metilippurico Acid, metabolite of Toluene. There have been cases of poisoning by Arsenic: the urinary arsenic values found are not correlated to occupational exposure. However, regarding Chromium, it is seen that a category of workers have values of this metal slightly higher than the threshold value: probably related to professional type exposure. The study compared the clinical data and statistics conducted on a group of exposed Serimant workers and shows the risk of poisoning related to the use of assessed chemicals is very low, through the adoption of preventive and protective measures.