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CHROMIUM CONCENTRATION IN TEHRAN ELECTROPLATING PLANTS

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Abstract:

Hazards of soluble hexa and trivalent chromium have been documented by many investigators. But there was no information regarding safety of about 5000 workers at exposure risk to chromium in 600 primitive electroplating work shops of Tehran. During this study more than 70% of work shops were inactive due to some of their own problems. Out of active plants those that were relatively more cooperative 43 manual and 3 semi automatic were investigated for chromium concentration both by personal and environmental Sampling. The Samples were analyzed by AAS and colorimetry. In 30% of personal and 40% of environmental samples both total and Cr+6 were higher than ACGIH'S TLV. In one of semiautomatic plant Cr=6 was as high as 0.71 mg/m³. Regarding injuries, following observations were made: Nasal wound 85%, skin irritation 73% , Dermatitis 35% and some other chromium related injuries including 2 cases of Septum perforations.

Keywords:

[Electroplating](#) , [Hazardous mists](#)

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