

## Quantitative analysis of N-nitrosodiethanolamine in cosmetic products by HPLC

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N-nitrosodiethanolamine(NDELA) is a contaminant formed by the action of nitrites on ethanolamines in a wide range of products including metalworking fluids, pesticides, antifreeze and personal care products. General population exposure is possible through contact with a variety of personal care products and the use of some tobacco products. There is sufficient evidence in experimental animals for the carcinogenicity of NDELA. Triethanolamine(TEA), diethanolamine(DEA), or monoethanolamine(MEA) is a neutralizing agent of viscosity increasing agent; carbomer or pH adjuster. Cosmetics containing as ingredients amines and amino derivatives, particularly DEA & TEA may form nitrosamines, if they also contain an ingredient which acts as a nitrosating agent as or if they are contaminated with a nitrosating agent, e.g., sodium nitrite. The experiments were carried out under isocratic elution mode using 0.05 % trifluoroacetic acid (TFA) in acetonitrile solution. in the ratio of 95/5 (v/v) and UV detection at 250 nm. The total run time was 55 min. The results show that some Korean cosmetic products contained to NDELA at 1.56 ppm level.