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Eco-benign skin preservation through salt substitution—a low salt approach

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ABSTRACT

For each kilogram of skin almost an equal quantity of salt is being employed for preservation. This large quantity of salt employed is discharged in waste streams of slaughterhouses and tanneries. Given the quantity of skins and hides processed at the rate of 25,000 tonnes or more per day globally, the amounts of salt to be disposed off pose serious environmental concern. Only in few select regions fresh hide/skin processing or alternative preservation methodologies are being resorted to, over a limited quantity of raw material resource. Salting still remains the major preservation methodology as it satisfies the major technological and commercial requirements. Many successful research efforts carried out on salt free/low salt preservation have not gained commercial acceptance for not meeting one or combination of requirements mentioned above. A low salt—MgO substituted skin preservation methodology has been developed meeting the requirements of preservation. The methodology employs less than 25% of salt on the weight of the skin used and is suitable for all conventional raw material resources. This paper deals with the approach made, evaluation of preserved skins and assessment of leathers made from such preserved skins.

Keywords: Skin and hide; Preservation; Curing; Sodium chloride; MgO

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