International Standard ISO 6992

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Unplasticized polyvinyl chloride (PVC-U) pipes for drinking water supply — Extractability of cadmium and mercury occurring as impurities

Tubes en polychlorure de vinyle non plastifié (PVC-U) pour l'alimentation en eau potable — Extractibilité du cadmium et du mercure au titre des impuretés

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Foreword

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Draft International Standards adopted by the technical committees are circulated to the member bodies for approval before their acceptance as International Standards by the ISO Council. They are approved in accordance with ISO procedures requiring at least 75 % approval by the member bodies voting.

International Standard ISO 6992 was prepared by Technical Committee ISO/TC 138, *Plastics pipes, fittings and valves for the transport of fluids*.

Users should note that all International Standards undergo revision from time to time and that any reference made herein to any other International Standard implies its latest edition, unless otherwise stated.

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0 Introduction

The use of cadmium compounds as stabilizers in unplasticized polyvinyl chloride (PVC-U) is forbidden or unacceptable in many countries. However, they may be present as impurities in acceptable additives.

Similarly, certain catalysts used for polymerization of vinyl chloride may contain mercury.

Therefore, the presence of traces of these metallic compounds in unplasticized polyvinyl chloride pipe is possible. The limits given in section two ensure that the extraction of such impurities by drinking water from unplasticized polyvinyl chloride (PVC-U) pipe in normal service will not exceed the requirements of the World Health Organization (WHO).

1 Scope and field of application

This International Standard specifies a test method for the determination of the extractability of certain impurities from unplasticized polyvinyl chloride (PVC-U) pipe in order to verify that the extraction quantities do not exceed a certain concentration. Section one deals exclusively with the extraction method and leaves the analytical method to the choice of the operator. Section two gives limits for these impurities in the extract, which have been found by experience to ensure that actual extraction in service will be acceptable by many regulatory authorities, particularly the World Health Organization (WHO).

This International Standard applies to unplasticized polyvinyl chloride (PVC-U) pipes intended for the transport of drinking water. It only relates to the extractability of

— cadmium and its derivatives;

— mercury and its derivatives.