

# ACCEPTANCE OF METALLIC MATERIALS USED FOR PRODUCTS IN CONTACT WITH DRINKING WATER

## 4MSI Common Approach

Part A – Methodologies for testing and accepting compositions to be included in the Positive list of compositions for metallic materials

Part B – Positive list of compositions for metallic materials

**Part C – Procedure and methods for testing and accepting final materials as used in a product made from compositions on the Positive List**

Adopted by the 4MSI Joint Management Committee

19 January 2021

France, Germany, the Netherlands, the United Kingdom and Denmark work together in the framework of the 4MSI Common Approach as laid down in the Declaration of Intent (January 2011). This common approach aims for convergence of the respective national approval schemes for materials and products in contact with drinking water.

The 4MSI have adopted Part A of this document as a common basis for implementing the concept of accepting metallic compositions. The document is subject to revisions agreed by the 4MSI.

Part B of this document includes a Positive List of metallic compositions accepted in all of the Member States of the 4MSI following the procedure described in Part A.

Part C includes the procedure and methods for accepting metallic products or components.

The structure of this document (Part A, B, C) follows the different implementing acts as described in the new article 11 paragraph 2 (a), (b), (c) of the European Drinking Water Directive.

Further information may be obtained from any of the competent authorities of the 4MSI.

Bundesministerium für Gesundheit (Deutschland)

Ministère du Travail, de l'Emploi et de la Santé (France)

Ministerie van Infrastructuur en Milieu (Nederland)

Department for Environment, Food and Rural Affairs (United Kingdom)

The Danish Transport, Construction and Housing Authority and Ministry of Environment  
(Denmark)

Denmark joined the 4MSI after the development of this common approach, and has therefore not assessed the content of the approach.

# **Part C – Procedure and methods for testing and accepting final materials as used in a product made from compositions on the Positive List**

## **1 Acceptance of products**

A product will be accepted if:

- all of its constituent metallic compositions comply with the Positive List
- it passes the required product surface tests

See Figure C for a schematic of the procedure

Note: If the product also has organic or other components – plastics, greases or lubricants - those components must also fulfil the specific requirements.

## **2 Test for compliance of the product with the European Positive List**

An analysis of the composition of the product shall be carried out in accordance with the relevant European standards and checked against the European Positive List. The analysis of the composition can be performed with X-Ray Fluorescence Analysis XRF (according to EN 15063-1/2); Optical Emission Spectrometer S-OES (according to EN 15079) or with wet chemical methods (e.g. Optical Emission Spectrometry with Inductively Coupled Plasma ICP-OES according to EN 15605).

## **3 Test for the compliance of the product with requirements for surface properties**

### **3.1 Characteristics of the initial surface**

Where the composition contains lead, Pb, at levels above 1% the standardised test procedure EN 16057 shall be carried out to ensure that the level of any metallic Pb layer left after manufacture is below set levels (to be defined!).

### **3.2 Unavoidable coatings on the water contact area**

Where the product has been nickel or nickel-chrome, Ni-Cr, plated test procedure EN 16058 shall be carried out to ensure that the level of any metallic Ni layer left after manufacture is below set levels (to be defined!).

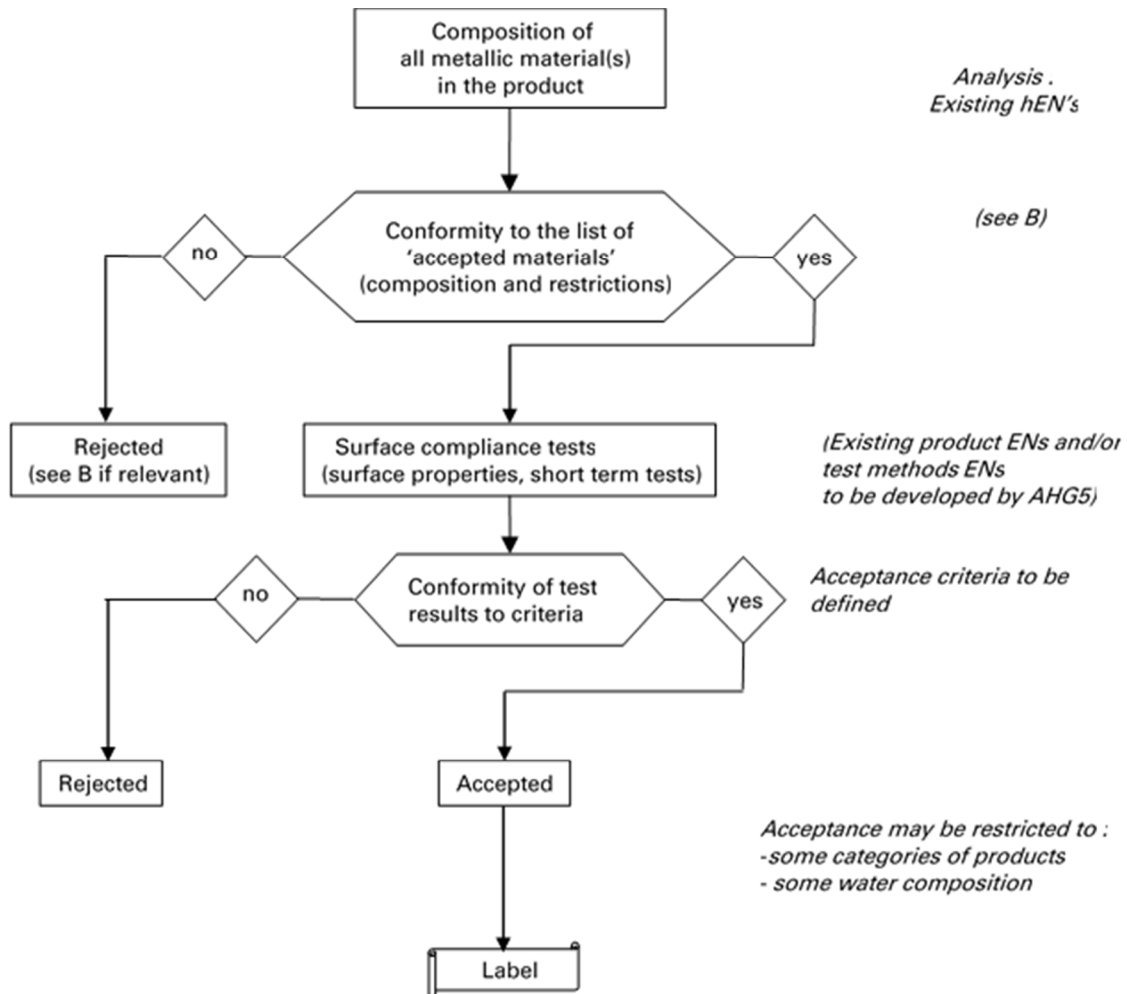
### **3.3 Intentional metallic coatings on the water contact area**

Pipes and fittings with specific coatings (e.g. copper pipes with tin coating, steel pipes with zinc coating) are covered in specific Categories in the European Positive List.

# Acceptance of Metallic Materials Used for Products in Contact with Drinking Water

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*Procedure for accepting products*



Note: A product can be made of one or more different metallic compositions or of one or more metallic compositions in association with organic compositions or products