



Zdravotní ústav se sídlem v Ostravě
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Centrum hygienických laboratoří

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ASSESSMENT OF ARTICLES COMING INTO DIRECT CONTACT WITH DRINKING WATER

In accordance with Section 5 of Act No. 258/2000 Coll., as amended, on the protection of public health, you have requested verification of the health safety of the products: **Franklin Electric VS 4", VS 1-2-3-4-6-8-10-15 series**, manufactured by **Franklin Electric S.r.l., via Asolo 7, 336031 Duenville, Italy**.

This submersible pump is used for water distribution, water removal from boreholes and system pressurizing. It is intended for permanent contact with drinking water.

The various model series only differ in the number of impellers, pump height, delivery head and amount of water delivered but not in the manufacturer, materials or chemical composition.

The product consists of the following parts:

- Pump mantle – stainless steel AISI 304
- Diffuser – Noryl
- Pump shaft – stainless steel AISI 304
- Impeller – polycarbonate
- Cable cover – stainless steel AISI 304

Documents submitted:

- Application for a specimen, containing the product name, manufacturer and material composition, dated 29 June 2022
- Franklin Electric VS 4" motorized submersible pump technical sheet
- Franklin Electric VS 4" motorized submersible pump material sheet
- Instructions for use of the pump
- Specimens for the extraction tests

The specimens were subjected to extraction tests as per Annex 1 to Regulation of the Ministry of Health No. 409/2005 on health protection requirements for products coming into direct contact with water and/or designed for water treatment (as amended). The extraction test evaluation is based on Section 3 of the Regulation of the Ministry of Health No. 409/2005 on health protection requirements for products coming into direct contact with water and/or designed for water treatment (as amended), which stipulates that products intended for contact with water must meet limits set for

extraction tests performed in the conditions and by the procedures described in Annex 1 to the above Regulation. The contribution to water pollution caused by the product coming into direct contact with water and designed for permanent contact with drinking water, as ascertained by the extraction test, must not exceed 10% of the hygiene limit of the drinking water indicator monitored, as determined by the Regulation of the Ministry of Health No. 252/2004, except for the following indicators: TOC 20% and COD(Mn) and mercury 30% of the hygiene limit. For the indicators: colour, odour and taste, the hygiene limits set by the above ministerial Regulation No. 252/2004 must be met. For the purposes of Regulation No. 409/2005, the hygiene limits for drinking water indicators not included in Regulation No. 252/2004 are set in Section 3 point 6 of the former Regulation.

Extraction test results

The samples were subjected to extraction tests according to Annex 1 to the ministerial Regulation No. 409/2005. The material was tested in direct contact with water and the physical, chemical and organoleptic indicators were determined in dependence on the nature, material composition and intended use.

The laboratory analysis results are included in Report No. 40860/2022 dated 29 July 2022, issued by the Institute of Public Health in Ostrava, Brno branch, address: Gorkého 6. Said Report is an integral part of this Assessment. The following facts were inferred from the laboratory analysis:

1. The mean concentrations of $K^{23}_{72,3}$ COD(Mn.), TOC, barium, chromium, cadmium, lead, nickel, phenols, colourant, benzo(a)pyrene, benzo(b)fluoranthene, benzo(k)fluoranthene, benzo(g,h,i)perylene and indeno(1,2,3-cd)pyrene lie below the limits of determination by the methods used
2. The resulting mean concentration of $K^{23}_{72,3}$ PAA lies below the limit of detection by the method used
3. The pH, zinc, manganese and turbidity levels meet the requirements set by Regulation No. 252/2004 (as amended)
4. The resulting organoleptic indicators: threshold odour number (TON) and threshold flavour number (TFN) also meet the limit set by Regulation No. 252/2004 (as amended). The organoleptic properties remain unaffected by the sample tested

Based on the evaluation of the extraction test results against the requirements of the Regulation it is concluded that: **Franklin Electric VS 4", VS 1-2-3-4-6-8-10-15 series**, manufactured by **Franklin Electric S.r.l., via Asolo 7, 336031 Duenville, Italy**,

meets

the requirements for articles intended for permanent direct contact with drinking water, as set by Regulation of the Ministry of Health No 409/2005 on the health requirements for articles coming into direct contact with water and for water treatment products (as amended).

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NB: The above statement refers only to the submitted submersible pump Franklin Electric VS 4", VS 1-2-3-4-6-8-10-15 series, manufacturer by Franklin Electric S.r.l., via Asolo 7, 336031 Duenville, Italy, and the conclusions drawn from this assessment may be applied to other products of the same type only provided that the composition and properties of such products are identical with those of the specimens assessed by us.

Annex: Accredited Report No. 40860/2022 dated 29 July 2022, issued by the Institute of Public Health in Ostrava, Brno branch, address: Gorkého 6.

Distribution list: 1x addressee, 1x Institute of Public Health in Ostrava