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**Subject: Stakeholder consultation on ECHA's draft recommendation of priority substances for inclusion in the list of substances subject to authorisation (Annex XIV)**

**Comments: Uses that should be exempted from REACH Authorisation requirement – Sodium Chromate (Article 58(2) REACH)**

This document outlines the main arguments presented in Dometic's submission supporting the exemption requested for the use of sodium chromate as anti-corrosion inhibitor in absorption refrigerators. The document is a complement to Dometic's confidential submission, to facilitate potential access to information requested by interested parties.

*Background*

Since 1925, Dometic (previously owned by Electrolux) is major producer of absorption refrigerators and has manufactured some 50 million absorption refrigerators. Today, Dometic produces approximately 700.000 cooling units per year, of which 350.000 units are sold in Europe. The European production facilities are located in Germany and Hungary.

Absorption refrigeration is a unique heat driven technology that can be operated on gas (propane/butane), kerosene or electricity. Absorption refrigerators contain no moving parts and as a result they are completely silent and vibration free. Therefore, they are frequently used in hospitals, hotels, and small apartments. Furthermore, they are used in caravans, motor homes and other places where electricity is not readily available. Today, the life length of an absorption refrigerator could be as long as 15 years or even longer.

The Dometic absorption cooling units are constructed in carbon steel because of its strength and good welding and cold-working properties. The refrigerant is an ammonia-water solution. The absorption cooling system is a hermetic system, which is pressurised with hydrogen gas. In order to prevent corrosion of the carbon steel cooling system a small amount of hexavalent chromium<sup>1</sup> is added to the refrigerant.

*Exempting the use of Sodium Chromate from REACH Authorization Requirement*

Dometic believes that the use of Sodium Chromate as an anti-corrosion agent in absorption refrigerators should be exempted from inclusion in Annex XIV of REACH. Dometic takes this position on the grounds that for this specific use of sodium chromate: 1) human and

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<sup>1</sup> Hexavalent Chromium and Sodium Chromate are used interchangeably in this document as explained in REACH Annex XV Dossier on Sodium Chromate.

environmental health risks are adequately controlled by existing EU legislation - article 4(2)(a) of Directive 2000/53/EC on End-of Life Vehicles and article 4(1) of Directive 2002/95/EC restricting the use of hazardous substances in electrical and electronic equipment (RoHS); and 2) currently no commercially viable alternatives to the aforementioned use of sodium chromate are available. At this stage, despite extensive research, there are a number of scientific and technological challenges, which remain to be overcome, and where alternatives to sodium chromate give rise to difficult trade-offs in respect to product lifetime, product reliability and energy efficiency.

As provided in ECHA's background document for Sodium Chromate, the priority for recommending the substance for authorization requirement is very low. Furthermore, due to the fact that the specific use of sodium chromate as an anti-corrosion inhibitor in absorption refrigeration is adequately controlled by existing EU legislation as per REACH Article 58 (2), Dometic believes that this use should be exempted from authorization requirement.