

Subject: Proposed amendment for the recommended formulation of exemption 9 of Annex III of Directive 2011/65/EU (RoHS 2) for reasons of alignment with the REACH regulation

In June 2016, the Oeko-Institut published a report (Gensch et al. 2016) on the evaluation of requests for the renewal of 29 exemptions listed in Annex III of the Directive. Among others the report documented the evaluation of exemption 9 of Annex III of the Directive which appears with the following formulation:

“Hexavalent chromium as an anticorrosion agent of the carbon steel cooling system in absorption refrigerators up to 0,75 % by weight in the cooling solution”

The renewal of this exemption had been applied for by Dometic GmbH (Dometic 2015), which had also applied for an authorisation for use of sodium chromate under Regulation 1907/2006/EC (REACH) where it had been listed in annex XIV (the authorisation list). In both cases the requests were related to the use of hexavalent chromium as anti-corrosion agent used by the applicant in the carbon steel cooling systems of absorption refrigerators that are produced and placed on the EU market.

In its recommendation Oeko-Institut took notice of the parallel REACH process which had not been finalised at the time of publication of the RoHS evaluation report. Against the background that Article 5(1)(a) of the RoHS Directive does not allow approving exemptions (their renewal or amendment), where this could weaken the protection afforded by the REACH Directive, it was recommended to align any future exemption formulations with the REACH authorisation should the process be finalised before the decision on the renewal request be published. Initially the report recommended a formulation, differentiating the heat source to be used in different absorption refrigerators.

On 15 February 2017, the European Commission published a decision concerning the Dometic request for a REACH authorisation (EU COM 2017). The decision authorises Dometic's use of sodium chromate in its absorption refrigerator products, making a differentiation in the authorisation duration between high and between low boiler temperature products in this respect.

The Oeko-Institut thus revised the initial recommendation made for the RoHS exemption in the 2016 report and herewith proposes a change to the formulation of this exemption. The newly recommended formulation does not adopt the REACH differentiation related to boiler temperature, but rather aligns the recommended dates of the formulated exemption with the relevant dates of the REACH authorisation.

Table 1: Amended formulation recommended for exemption 9 of Annex III of Directive 2011/65/EU (RoHS 2)

Exemption 9	Duration*
Hexavalent chromium as an anticorrosion agent of the carbon steel cooling system in absorption refrigerators up to 0,75 % by weight in the cooling solution	<i>Expires on:</i> <ul style="list-style-type: none"> • 21 July 2021 for categories 8 and 9 other than in vitro diagnostic medical devices and industrial monitoring and control instruments; • 21 July 2023 for category 8 in vitro diagnostic medical devices; • 21 July 2024 for category 9 industrial monitoring and control instruments, and for category 11."
(I) designed to operate with electrical heater only;	For Cat. 1: 31.12.2019 (*date aligned with REACH authorization REACH/17/7/0)
(II) designed to operate with variable energy sources; (III) designed to operate with other than an electrical heater;	For Cat. 1: 21.7.2021 (five years)

Though a possible alignment with the boiler temperature, as specified under REACH, had been discussed with Dometic during the initial evaluation, this differentiation was abandoned. Dometic (Dometic 2016) stated in 2016 that the boiling temperature varies significantly with the ambient conditions and the heat load of the cooling unit and that market control of boiling temperature would be difficult. Specifying high and low temperatures, without detailing the exact range could also result in uncertainties. The consultants proposed to describe the first split of the exemption via the energy source (“absorption refrigerators designed to operate with electrical heater only”). This is also understood to be a practicable solution from a market surveillance perspective. On this basis the differentiation based on energy source has been retained, only aligning the exemption dates with the REACH authorisation to allow for better consistency between the legislations and to avoid possible distortions in relation to manufacture inside and outside the EU. Alignment of the duration for the second and third items of the proposed exemption (until 21.7.2021) compared to 1.9.2029 for high boiler temperature products addressed under REACH, is not possible as the maximum duration of RoHS exemptions for categories 1-7 and 10 is limited to five years.

A further effort to align the exemption formulation with the REACH Authorisation was discussed with Dometic. Though Dometic has acknowledged the above formulation as preferable, they proposed the following formulation as a further alignment with REACH, i.e. with additional parameters mentioned in the context of the REACH Authorisation, namely the electrical power input. The average utilised heat input of 75W during constant running conditions, is understood by Dometic to comprise a possible threshold for separating between low and high boiler temperatures. Dometic explains that the electrical heating power can easily be measured and is also often specified on the data label of the product and

can thus be used by market surveillance to differentiate between products falling under the scope of the proposed exemption items. In parallel, the differentiation also essentially captures the intention of Dometic in the REACH application, namely the separation between equipment such as minibars (smaller electrical appliances operating on electrical power) and larger appliances.

Table 2: Additional proposed formulation for exemption 9 of Annex III of Directive 2011/65/EU (RoHS 2), aligned with REACH

Exemption 9	Duration*
Hexavalent chromium as an anticorrosion agent of the carbon steel cooling system in absorption refrigerators up to 0,75 % by weight in the cooling solution	<i>Expires on:</i> <ul style="list-style-type: none"> • 21 July 2021 for categories 8 and 9 other than in vitro diagnostic medical devices and industrial monitoring and control instruments; • 21 July 2023 for category 8 in vitro diagnostic medical devices; • 21 July 2024 for category 9 industrial monitoring and control instruments, and for category 11."
(IV) designed to operate fully or partly with electrical heater, having an average utilised electrical power input < 75 W at constant running conditions.	For Cat. 1-7 and 10: 31.12.2019 (*date aligned with REACH authorization REACH/177/0)
(V) designed to operate fully or partly with electrical heater, having an average utilised electrical power input ≥ 75 W at constant running conditions. (VI) designed to fully operate with non-electrical heater.	For Cat. 1-7 and 10: 21.7.2021 (five years)

This formulation has not been consulted upon with stakeholders as of yet. Nonetheless, under the understanding that the European Commission will publish the draft delegated act to be drawn for the amendment of Ex. 9 for public feedback, it is understood that stakeholders shall still have an opportunity to comment as to the formulation and contribute towards this process. In that sense, if alignment with REACH of the exemption formulation is deemed as necessary, this further specification of the formulation would be possible.

References

Dometic (2015): Original Application for Exemption Renewal Request, 20.01.2015. Online verfügbar unter http://rohs.exemptions.oeko.info/fileadmin/user_upload/RoHS_Pack_9/Exemption_9/9_150120_RoHS_V_Application_Form_Dometic.pdf.

Dometic (2016): Email communication submitted by Dometic concerning the formulation of exemption 9, 12.02.2016.

EU COM (2017): Summary of European Commission Decisions on authorisations for the placing on the market for the use and/or for use of substances listed in Annex XIV to Regulation (EC) No 1907/2006 of the European Parliament and of the Council concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH). (Published pursuant to Article 64(9) of Regulation (EC) No 1907/2006, 15.02.2017. Online verfügbar unter http://eur-lex.europa.eu/legal-content/EN/TXT/?uri=uriserv:OJ.C_.2017.048.01.0009.01.ENG.

Gensch, C.; Baron, Y.; Blepp, M. Deubzer, O.; Moch, K.; Moritz, S., peer reviewed by Gibbs, A. (2016): Assistance to the Commission on technological, socio-economic and cost-benefit assessment related to exemptions from the substance restrictions in electrical and electronic equipment (RoHS Directive) - Pack 9, 2016. <http://rohs.exemptions.oeko.info/>.