

## Questionnaire 1 (Clarification) Exemption 9(a)-II of RoHS Annex Y

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Current wording of the requested exemption:

*Up to 0.75 % hexavalent chromium by weight, used as an anticorrosion agent in the cooling solution of carbon steel cooling systems of absorption refrigerators:*

*— designed to operate fully or partly with electrical heater, having an average utilised power input  $\geq 75$  W at constant running conditions,*

*—designed to fully operate with non-electrical heater.*

Requested validity period: 5 years

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### Acronyms and Definitions

Cr<sup>6+</sup> hexavalent chromium

#### 1. Background

Bio Innovation Service, UNITAR and Fraunhofer IZM have been appointed<sup>1</sup> by the European Commission through for the evaluation of applications for the review of requests for new exemptions and the renewal of exemptions currently listed in Annexes III and IV of the RoHS Directive 2011/65/EU.

COMPANY XYZ submitted a request for the renewal of the above-mentioned exemption, which was subject to a first review. As a result we identified that some information is missing. Against this background, the questions below are intended to clarify aspects concerning the request at hand.

We ask you to kindly answer the below questions until 29 January 2021 latest.

#### 2. Questions

1. You state in your renewal request that you will have to redesign your cooling units to decrease the boiling temperature and minimising the risk for corrosion inside the tubes. You plan coordinating this task within your regular re-design plan and phase out plan for older models that anyhow need updates.

What do you mean with “coordinating” the redesign task with your regular re-design and phase-out plan?

The answer was taken out from an email send by Brent Anderson from Dometic:

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<sup>1</sup> It is implemented through the specific contract 070201/2020/832829/ENV.B.3 under the Framework contract ENV.B.3/FRA/2019/0017

Answer on your specific question:

“As you probably know we have already phased out sodium chromate from the part of our range with low and medium boiling temperature where the risk of internal corrosion is lower. The substitution is not only a drop-in solution, but include also a review of the cooling units to minimize the boiling temperature (although remaining of increasing the cooling performance) and an electronic system to monitor the actual boiling temperature. This system will potentially shut down the system before a potential leak appears.

The remaining products – with altogether approximately 20 cooling units – have higher boiler temperature and require additions re-design and long term testing. Most of these products are only for use in vehicles and marine applications and benefit now from exemption 14 in the ELV Directive until January 1<sup>st</sup> 2026. (Note: there is a typo (missing line) in the annex table of Commission Delegated Directive 2020/362 granting this exemption. Category (i) should have expiring date January 2020 in line with the same category as in RoHS, and category (ii) and (iii) should have expiring date January 2026).

For high boiling temperature within the scope of RoHS we only have 2 cooling unit models. These are for portable cooling boxes capable of using multiple energy sources (gas and DC and AC electricity). We would like to handle the phase out for these cooling units together with the products covered by ELV, and consequently we are asking for aligning the expiring date with ELV.

The project of substituting sodium chromate in the ELV products is ongoing, and we are confident of making the substituting in line with the exemption 14 time line. It would however be difficult lift out the two RoHS units from this project with a more ambitious time line, and it could potentially jeopardize the results for the ELV range.

Please let me know if you have any additional questions. “

**Please note that answers to these questions will be published as part of the evaluation of this request. If your answers contain confidential information, please provide a version that can be made public along with a confidential version, in which proprietary information is clearly marked.**

**It would be helpful if you could kindly provide the information in formats that allow copying text, figures and tables to be included into the review report.**