Exemption Request Form

Date of submission: 2015-01-19

1. Name and contact details

1) Name and contact details of applicant:

Company:	YAGEO Corporation	Tel.:+886.7.961.6999 ext 3727
Name:	Victor Chiao	E-Mail: victor.chiao@yageo.com
Function:	Quality Manager	Address: <u>No.291/350 , Zhongzheng</u> <u>Rd., Dashe Dist.,Kaohsiung City</u> <u>81545, Taiwan</u>

2) Name and contact details of responsible person for this application (if different from above):

Company:	YAGEO Corporation	Tel.: <u>+886.7.961.6999 ext 3727</u>
Name:	Victor Chiao	E-Mail:victor.chiao@yageo.com
Function:	Quality Manager Address: <u>No.291/ 350 , Zhongzh</u> Rd., Dashe Dist.,Kaohsiung City	
		81545, Taiwan

2. Reason for application:

Please indicate where relevant:

Request for new exemption in:

Request for amendment of existing exemption in

Request for extension of existing exemption in

Request for deletion of existing exemption in:

Provision of information referring to an existing specific exemption in:

Annex III	Annex IV	
No. of exemption in Annex III	or IV where applicable:	<u>7(C)-1</u>
Proposed or existing wording	Electrical and electronic co	mponents containing lead in a
glass or ceramic other than d	electric ceramic in capacitor	rs, e.g. piezoelectronic

devices, or in a glass or ceramic matrix compound.

Duration where applicable:

July, 2011~ July,2016

Other:

3. Summary of the exemption request / revocation request

Proposed Annex III 7(C)-1 extension for another 5 years.

4. Technical description of the exemption request / revocation request

(A) Description of the concerned application:

- 1. To which EEE is the exemption request/information relevant? Name of applications or products: <u>Chip-resistors</u>
- a. List of relevant categories: (mark more than one where applicable)

□ 1	7
2	8
3	 9
4	1 0
5	☑ 11
<u>6</u>	

- b. Please specify if application is in use in other categories to which the exemption request does not refer: <u>Electronic component</u>
- c. Please specify for equipment of category 8 and 9:
 The requested exemption will be applied in

monitoring and control instruments in industry

in-vitro diagnostics

other medical devices or other monitoring and control instruments than those in industry

 Which of the six substances is in use in the application/product? (Indicate more than one where applicable)

⊡Pb	Cd	□Hg	Cr-VI	PBB	

- 3. Function of the substance: Enhance resistor stability
- 4. Content of substance in homogeneous material (%weight): <u>0.108%</u>
- Amount of substance entering the EU market annually through application for which the exemption is requested: <u>346 kg/ yr</u> Please supply information and calculations to support stated figure. (75 B pcs/yr x4.27 g/Kpcs x 0.108%)
- 6. Name of material/component: <u>chip resistor</u>
- 7. Environmental Assessment: <u>ISO-14001</u> LCA: □ Yes

⊠No

(B) In which material and/or component is the RoHS-regulated substance used, for which you request the exemption or its revocation? What is the function of this material or component?

Pb, the function is enhance resistor stability.

(C) What are the particular characteristics and functions of the RoHS-regulated substance that require its use in this material or component?

Stabilize resistance value & reliability performance.

5. Information on Possible preparation for reuse or recycling of waste from EEE and on provisions for appropriate treatment of waste

1) Please indicate if a closed loop system exist for EEE waste of application exists and provide information of its characteristics (method of collection to ensure closed loop, method of treatment, etc.) YAGEO is Chip resistors manufacturer & ship the components to our customer who assemble components into end products. End customer should follow the requirements of regulation for waste treatment.

2) Please indicate where relevant: <u>N/A</u>

- Article is collected and sent without dismantling for recycling
- Article is collected and completely refurbished for reuse
- Article is collected and dismantled:

The following parts are refurbished for use as spare parts:

The following parts are subsequently recycled:

Article cannot be recycled and is therefore:

Sent for energy return

Landfilled

3) Please provide information concerning the amount (weight) of RoHS substance present in EEE waste accumulates per annum:

In articles which are refurbished	
In articles which are recycled	
In articles which are sent for energy return	
In articles which are landfilled	

6. Analysis of possible alternative substances

(A) Please provide information if possible alternative applications or alternatives for use of RoHS substances in application exist. Please elaborate analysis on a life-cycle basis, including where available information about independent research, peer-review studies development activities undertaken

N/A (This information should be provided by our raw material suppliers)

(B) Please provide information and data to establish reliability of possible substitutes of application and of RoHS materials in application No sufficient information now.

7. Proposed actions to develop possible substitutes

(A) Please provide information if actions have been taken to develop further possible alternatives for the application or alternatives for RoHS substances in the application.

We are pushing the materials suppliers to provide the lead free paste and so far they have not yet committed any time line or firm decision. Yageo as a chip resistor component supplier is constrained by the paste supplier and we will do the best effort to push for it.

(B) Please elaborate what stages are necessary for establishment of possible substitute and respective timeframe needed for completion of such stages.

We are pushing the materials suppliers to provide the lead free paste and so far they have not yet committed any time line or firm decision. Yageo as a chip resistor component supplier is constrained by the paste supplier and we will do the best effort to push for it.

8. Justification according to Article 5(1)(a):

(A) Links to REACH: (substance + substitute)

- Do any of the following provisions apply to the application described under (A) and (C)? <u>N/A</u>
 - Authorisation

|--|

- Candidate list
- Proposal inclusion Annex XIV
- Annex XIV

Restriction

- Annex XVII
- Registry of intentions

Registration

 Provide REACH-relevant information received through the supply chain. Name of document: _____

(B) Elimination/substitution:

1. Can the substance named under 4.(A)1 be eliminated?

🗌 Yes.	Consequences?	
	Consequences?	
103.	oonsequences:	

✓ No. Justification: <u>No sufficient information from</u> material suppliers.

2. Can the substance named under 4.(A)1 be substituted?

Yes.

Design changes:

- Other materials:
- Other substance:

☑ No.

Justification: No sufficient information from material suppliers

3. Give details on the reliability of substitutes (technical data + information):

No sufficient information now

- 4. Describe environmental assessment of substance from 4.(A)1 and possible substitutes with regard to
 - 1) Environmental impacts: N/A
 - 2) Health impacts: N/A
 - 3) Consumer safety impacts: N/A
- Do impacts of substitution outweigh benefits thereof?
 Please provide third-party verified assessment on this: <u>N/A</u>

(C) Availability of substitutes:

- a) Describe supply sources for substitutes: <u>N/A</u>
- b) Have you encountered problems with the availability? Describe: <u>Yes,</u> <u>Material / Technology</u>
- c) Do you consider the price of the substitute to be a problem for the availability?

□ Yes 🗹 No

d) What conditions need to be fulfilled to ensure the availability? <u>Lead –free</u> <u>materials should meet resistor performance.</u>

(D) Socio-economic impact of substitution:

- ⇒ What kind of economic effects do you consider related to substitution?
 - ☐ Increase in direct production costs
 - Increase in fixed costs
 - Increase in overhead
 - Possible social impacts within the EU
 - Possible social impacts external to the EU
 - ☑ Other: <u>Lead –free materials should meet resistor performance</u>
- ⇒ Provide sufficient evidence (third-party verified) to support your statement: N/A

9. Other relevant information

Please provide additional relevant information to further establish the necessity of your request:

Our customer may face components shortage if extension request is not accepted.

10. Information that should be regarded as proprietary

Please state clearly whether any of the above information should be regarded to as proprietary information. If so, please provide verifiable justification:

Yes, company proprietary.