

February 2025

## - RoHS Declaration -

Nexperia B.V. declares that its semiconductor products, including all homogeneous materials used in their composition, are designed to be RoHS-compliant by meeting the requirements defined under Directive 2011/65/EU of 2011-07-21, amended by Directive (EU) 2015/863 of 2015-03-31, on the restriction of the use of certain hazardous substances in electrical and electronic equipment (EEE):

RoHS-Restricted Substance	Permissible Limit on the Homogeneous Material Level
Cadmium (Cd)	100 ppm (0.01 weight %)
Mercury (Hg)	1000 ppm (0.1 weight %)
Hexavalent chromium (Cr <sup>6+</sup> )	1000 ppm (0.1 weight %)
Lead (Pb)	1000 ppm (0.1 weight %)
Polybrominated biphenyls (PBBs)	1000 ppm (0.1 weight %)
Polybrominated diphenyl ethers (PBDEs) including decabromodiphenylether (decaBDE)	1000 ppm (0.1 weight %)
Bis(2-ethylhexyl) phthalate (DEHP)	1000 ppm (0.1 weight %)
Butyl benzyl phthalate (BBP)	1000 ppm (0.1 weight %)
Dibutyl phthalate (DBP)	1000 ppm (0.1 weight %)
Diisobutyl phthalate (DIBP)	1000 ppm (0.1 weight %)

All Nexperia products are EU RoHS-compliant and bear the "RoHS-compliant" logo on the identification label applied to the packaging. Nexperia devices that contain no more than 0.1 % lead by weight per homogeneous material are assigned the RHF indicators G or D. These products can be recognized by the "Lead-free" logo on the packaging label. Nexperia products that contain RoHS-exempted lead are assigned the RHF indicators E or H and may make use of the following RoHS exemptions:

RoHS Exemption	RoHS Exemption Description	
7(a)	Lead in high melting temperature type solders (i.e. lead-based alloys containing 85% by weight or more lead)	
7(c)-I	Electrical and electronic components containing lead in a glass or ceramic other than dielectric ceramic in capacitors, e.g. piezoelectronic devices, or in a glass or ceramic matrix compound	

The RHF indicator can be found on the respective product page, such as on the <u>product page of BAS16-Q</u> under "Environmental information". Table 1 in the Appendix to this document lists all released packages using RHF indicators E or H and the information on whether the respective package makes use of RoHS exemption 7(a) and/or 7(c)-I, respectively.



As of today, the EU Commission has not yet made a final decision on the renewal applications for exemptions 7(a) and 7(c)-I. Consequently, these exemptions remain valid under Article 5(5) of the Directive. On 2025-01-13, the feedback period opened for the draft delegated acts concerning exemptions for "lead in high melting temperature type solders" and "lead in glass or in ceramic of electrical and electronic components" opened. Based on our review, and assuming these acts are adopted without changes, the following exemptions would apply to Nexperia's products:

Exemption 7(a)-I: Lead in high melting temperature type solders (i.e., lead-based alloys containing 85% by weight or more lead) for internal interconnections for attaching die, or other components along with a die in semiconductor assembly with steady state or transient/impulse currents of 0.1 A or greater or blocking voltages beyond 10 V, or die edge sizes larger than  $0.3 \text{ mm} \times 0.3 \text{ mm}$ .

Exemption 7(c)-V: Electrical and electronic components containing lead in a glass or glass matrix compound that fulfils any of the following functions:

1) for protection and electrical insulation in glass beads of high-voltage diodes and glass layers for wafers on the basis of a lead-zinc-borate or a lead-silica-borate glass body; [...]

To facilitate compliance checks and inform the public, we make product composition declarations available on our public website. The signature below verifies that the above statements, including any product composition data, are valid and accurate to the best of our knowledge and belief. Nexperia has implemented robust systems to ensure that our products comply with global environmental regulations and laws. In the event of any issues arising from information in this document, Nexperia's standard terms and conditions of sale shall apply, unless alternate contracts have been agreed upon in writing by both parties. For further details, please reach out to your Nexperia contact, get in touch with the nearest <u>Sales office</u>, or fill in the technical support form (after registration).

Dr. Timo Stein Manager ECO-Products Nexperia B.V.



## **APPENDIX**

**Table 1:** Packages of active Nexperia products that contain lead in concentrations exceeding  $0.1 \% \ w/w$  of any homogeneous material along with the applicability of RoHS exemption 7(a) and/or 7(c)-I, respectively.

Package	RoHS exemption 7(a)	RoHS exemption 7(c)-I
SOD1001-1	TRUE	TRUE
SOD1002-1	TRUE	TRUE
SOD1003-1	TRUE	TRUE
SOD123FL	TRUE	FALSE
SOD123HP	TRUE	FALSE
SOD123W	TRUE	FALSE
SOD128	TRUE	FALSE
SOD128FL-1	TRUE	FALSE
SOD323HP	TRUE	FALSE
SOT1023	TRUE	FALSE
SOT1023A	TRUE	FALSE
SOT1205	TRUE	FALSE
SOT1210	TRUE	FALSE
SOT1235	TRUE	FALSE
SOT1289	TRUE	FALSE
SOT1289B	TRUE	FALSE
SOT226C	TRUE	FALSE
SOT404	TRUE	FALSE
SOT404A	TRUE	FALSE
SOT428	TRUE	FALSE
SOT428C	TRUE	FALSE
SOT429	TRUE	FALSE
SOT429-2	TRUE	FALSE
SOT669	TRUE	FALSE
SOT78	TRUE	FALSE
SOT78A	TRUE	FALSE
SOT8000	TRUE	FALSE
SOT8000A	TRUE	FALSE
SOT8005	TRUE	FALSE
SOT8005A	TRUE	FALSE
SOT8017	TRUE	FALSE
SOT8018	TRUE	FALSE
SOT8021	TRUE	FALSE
SOT8022	TRUE	FALSE
SOT8038-1	TRUE	FALSE
SOT8070-1	TRUE	FALSE
SOT8071-1	TRUE	FALSE

## **Past Use of Exemptions**

Glass diodes belonging to packages SOD27, SOD66, SOD68, and SOD80C made use of RoHS exemption 7(c)-I in the past. On 2024-03-26, Nexperia issued change notice CN-202310015F, titled "Change to Pb-free Glass Diodes". After the implementation of this CN on 2024-09-23, Nexperia's glass diodes no longer require RoHS exemption 7(c)-I.