

REACH Compliance Statement

Knowles Precision Devices is a leading supplier of electronic components, supporting the European REACH Directive and customer requirements of our industry.

REACH directive

Regulation (EC) No 1907/2006 of the European Parliament and of the Council of 18 December 2006 concerning the Registration, Evaluation, Authorization and Restriction of Chemicals (REACH), which established a European Chemicals Agency and amended Directive 1999/45/EC, including legal text published in the Official Journal of the European Union.

REACH restricted substances

All product lines listed in Table 1 comply with the restrictions on substances, mixtures and/or articles that are set out in Annex XVII of REACH, which includes all entries for Lead (Pb) and its compounds.

REACH declarable substances

In compliance and fulfilling the communication requirements of Article 33 of the REACH directive and Article 9 (1)(i) of the SCIP Directive (EU) 2018/851. Knowles declares the parts listed in Table 1 contain the REACH Candidate list Substance of Very High Concern (SVHC) Lead (Pb, CAS number 7439-92-1) and Lead Titanium Oxide (PbTiO₃, CAS number 12060-00-3) in concentrations above the threshold limit of 0.1% w/w.

Number of Substances on the Candidate List: 224 (Latest update: June/10/2022)

The candidate list can be found at the following webpage: <http://echa.europa.eu/web/guest/candidate-list-table>

Table 1: Product Lines

Product line	Description	TARIC	SVHC
(Knowles Novacap Brand) Multilayer Capacitors	Dielectric codes B, C, D, E, F, G, J, K, L, N, S, T, U, V, or with termination codes D, E, Y, or leaded parts with Lead (Pb) bearing solder.	8532240000	<u>Dielectric</u> Lead Titanium Oxide (PbTiO ₃) 1 to 8% w/w.(i) <u>Termination</u> Lead (Pb) 0.1 to 1% w/w. (ii) <u>Lead solder</u> Lead (Pb) 0.1 to 6.0% w/w (iii)
	Dielectric codes AH, BB, BL, BN, W, BW, CF, M, NA, Q, RB, RC, RD, RE, RF, RG, RL, RN, RS, RT, RU, RV, UL and with termination codes B, C, FR, K, N, NG, PR, SR		REACH 224 compliant (10-06-2022)
(Knowles DLI Brand) Multilayer Capacitors	Termination codes U, Y, V or leaded parts with Lead (Pb) bearing solder	8532240000	<u>Termination</u> Lead (Pb) 0.1 to 1% w/w. (ii) <u>Lead solder</u> Lead (Pb) 0.1 to 6.0% w/w (iii)
	Dielectric codes AH, CF, BL, NA and with termination codes M, P, Q, S, W, Z.		REACH 224 compliant (10-06-2022)

Disclosure for Legacy Novacap Capacitors with dielectric codes P, Y, Z these components contain up to 70% by weight of Lead monoxide CAS # 1317-36-8. There are no substitute lead-free capacitors available for these dielectrics.

- (i) The Lead Titanium Oxide substance is chemically combined in a ceramic glass matrix and presents no hazard to humans or the environment under normal handling and use.
- (ii) The Lead substance could represent a risk of exposure through touch.
- (iii) The Lead Solder is not exposed and presents no hazard to humans or the environment under normal handling and use.



Bob Nelson
 Engineering Manager
 Knowles Precision Devices
Bob.Nelson@knowles.com