


# MATERIAL DECLARATION



Material Number	TC33-2 (1KΩ<RC<100KΩ)			
Product Line	Trimmer			
Compliance Date	<b>RoHS Directive 2015/863 Mar. 31, 2015 and Annex. 8-16-2004</b> <b>Updated : 11/26/2024</b>			
RoHS Compliant	Yes	MSL	1	

NO	Construction Element(subpart)	Homogeneous Material	Material weight [g]	Homogeneous Material\ Substances	CASRN if applicable	Materials Mass %	Mass % of total unit wt. Material	Subpart mass of total wt. (%)
1	SUBSTRATE	ALUMINA	0.0131	Magnesium oxide	1309-48-4	0.9	0.382	42.477
				Silica, Crystalline	14808-60-7	2.8	1.189	
				Aluminum oxide	1344-28-1	96	40.778	
				Calcium oxide	1305-78-8	0.3	0.127	
2	ELECTRODE	GLASS Ag-Pd	0.0004	Copper (metallic)	7440-50-8	0.63	0.008	1.297
				Palladium	7440-05-3	3.8	0.049	
				Silver	7440-22-4	92	1.193	
				Glass without declarable substances	-	1	0.013	
				Misc., not to declare	-	2.57	0.033	
3	RESISTANCE ELEMENT	METAL GLAZED RESISTORS	0.0006	Dicopper oxide	1317-39-1	0.17	0.003	1.946
				Copper oxide	1317-38-0	0.39	0.008	
				Silver	7440-22-4	22.24	0.433	
				Tin oxide	18282-10-5	0.37	0.007	
				Manganese dioxide	1313-13-9	0.7	0.014	
				Hafnium(IV) oxide	12055-23-1	0.19	0.004	
				Ruthenium(IV) oxide	12036-10-1	27.66	0.538	
				Glass without declarable substances	Trade secret	42.47	0.826	

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4	TERMINAL CONNECTOR	SOLDER Sn-3Ag-0.5Cu	0.001	Zirconium oxide	1314-23-4	5.81	0.113	3.243
				Lead	7439-92-1	0.0499	0.002	
				Antimony	7440-36-0	0.05	0.002	
				Arsenic, elemental	7440-38-2	0.03	0.001	
				Bismuth	7440-69-9	0.1	0.003	
				Copper (metallic)	7440-50-8	0.5	0.016	
				Silver	7440-22-4	3	0.097	
				Tin	7440-31-5	96.2701	3.122	
5	TERMINAL	STEEL	0.005729	Iron	7439-89-6	99.55	18.493	18.577
				Manganese	7439-96-5	0.3	0.056	
				Carbon	7440-44-0	0.075	0.014	
				Phosphorus	7723-14-0	0.05	0.009	
				Sulphur	7704-34-9	0.025	0.005	
6	TERMINAL GROUND PLATING	Ni	0.000098	Nickel	7440-02-0	99.75	0.317	0.318
				Misc., not to declare	-	0.25	0.001	
7	TERMINAL PLATING	Sn	0.000213	Tin	7440-31-5	99.75	0.689	0.691
				Misc., not to declare	-	0.25	0.002	
8	MOVING CONTACT	STAINNLESS STEEL	0.0088	Nickel	7440-02-0	9.25	2.639	28.534
				Silicon	7440-21-3	0.5	0.143	
				Iron	7439-89-6	70.1725	20.023	
				Manganese	7439-96-5	1	0.285	
				Chromium	7440-47-3	19	5.422	
				Carbon	7440-44-0	0.04	0.011	
				Phosphorus	7723-14-0	0.0225	0.006	
				Sulphur	7704-34-9	0.015	0.004	
9	INSULATION	URETHANE ACRYLATE	0.0009	Acrylate Urethane Oligomer	Trade secret	97	2.831	2.918
				Further Additives, not to declare	-	3	0.088	

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Total weight	0.03084
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**This Document was updated on: 11/26/2024**

**Important remarks:**

1. It is the responsibility of the user to verify they are accessing the latest version.