

MATERIAL DECLARATION SHEET



Material Number	UAL			
Product Line	Fixed Resistor			
Compliance Date	10/10/2024			
RoHS Compliant		MSL	1	

Reference P/N: UAL25-2RU1 (Under 20 Ohm)

No.	Construction Element (Subpart)	Homogeneous Material	Material Weight (g)	Homogeneous Material Substance	CASRN	Material Mass %	Material Mass % of total unit wt.	Subpart mass of total wt. (%)
1	Ceramic Core	Ceramic	3.2000	Silicon Dioxide (SiO ₂)	7631-86-9	18.4800%	3.8530%	20.8496%
				Sodium (Na)	7440-23-5	0.3000%	0.0625%	
				Iron(III) Oxide (Fe ₂ O ₃)	1309-37-1	0.6400%	0.1334%	
				Potassium Dioxide (KO ₂)	12030-88-5	0.2900%	0.0605%	
				Magnesium (Mg)	7439-95-4	0.4200%	0.0876%	
				Calcium (Ca)	7440-70-2	0.3000%	0.0625%	
				Aluminum (Al)	7429-90-5	72.9500%	15.2098%	
				Titanium Dioxide (TiO ₂)	13463-67-7	0.2500%	0.0521%	
				Barium (Ba)	7440-39-3	5.9500%	1.2406%	
	Lg Loss	NA	0.4200%	0.0876%				
2	Ceramic Cap	Stainless Steel SWRCH8A	0.2600	Iron (Fe)	7439-89-6	99.3570%	1.6831%	1.6940%
				Copper (Cu)	7440-50-8	0.0260%	0.0004%	
				Nickel (Ni)	7440-02-0	0.0130%	0.0002%	
				Manganese (Mn)	7439-96-5	0.3500%	0.0059%	
				Chromium (Cr)	7440-47-3	0.0200%	0.0003%	
				Carbon (C)	7440-44-0	0.0600%	0.0010%	
				Phosphorus (P)	7723-14-0	0.0800%	0.0014%	
				Silicon (Si)	7440-21-3	0.0200%	0.0003%	
				Ammonium lauryl sulfate (AIS)	2235-54-3	0.0240%	0.0004%	
	Sulfur (S)	7704-34-9	0.0500%	0.0008%				
3	Terminal	Stainless Steel SWRCH8A	0.5375	Iron (Fe)	7439-89-6	99.3570%	3.4796%	3.5021%
				Copper (Cu)	7440-50-8	0.0260%	0.0009%	
				Nickel (Ni)	7440-02-0	0.0130%	0.0005%	

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				Manganese (Mn)	7439-96-5	0.3500%	0.0123%	
				Chromium (Cr)	7440-47-3	0.0200%	0.0007%	
				Carbon (C)	7440-44-0	0.0600%	0.0021%	
				Phosphorus (P)	7723-14-0	0.0800%	0.0028%	
				Silicon (Si)	7440-21-3	0.0200%	0.0007%	
				Ammonium lauryl sulfate (AIS)	2235-54-3	0.0240%	0.0008%	
				Sulfur (S)	7704-34-9	0.0500%	0.0018%	
4	Resistive Element	Cuprothal	0.3630	Nickel (Ni)	7440-02-0	44.0000%	1.0407%	2.3651%
				Iron (Fe)	7439-89-6	0.5000%	0.0118%	
				Manganese (Mn)	7439-96-5	1.0000%	0.0237%	
				Copper (Cu)	7440-50-8	54.5000%	1.2890%	
5	Housing	AL6063	7.2000	Silicon (Si)	7440-21-3	0.4200%	0.1970%	46.9116%
				Iron (Fe)	7439-89-6	0.1560%	0.0732%	
				Magnesium (Mg)	7439-95-4	0.5350%	0.2510%	
				Copper (Cu)	7440-50-8	0.0360%	0.0169%	
				Manganese (Mn)	7439-96-5	0.0230%	0.0108%	
				Chromium (Cr)	7440-47-3	0.0100%	0.0047%	
				Zinc (Zn)	7440-66-6	0.0150%	0.0070%	
				Titanium (Ti)	7440-32-6	0.0150%	0.0070%	
				Aluminum (Al)	7429-90-5	98.7900%	46.3440%	
6	Compound Mold	Epoxy Mold	3.7875	Epoxy Resin	25068-38-6	17.0000%	4.1952%	24.6775%
				Phenolic Resin	9003-35-4	8.0000%	1.9742%	
				Mineral Fillers	60676-86-0	63.0000%	15.5468%	
				Flame Retardants	Trade Secret	8.0000%	1.9742%	
				Pigments	Not to Declare	4.0000%	0.9871%	
		Total Weight	15.3480					

Reference P/N: UAL25-63R4F1 (Over 20 Ohm)

No.	Construction Element (Subpart)	Homogeneous Material	Material Weight (g)	Homogeneous Material Substance	CASRN	Material Mass %	Material Mass % of total unit wt.	Subpart mass of total wt. (%)
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1	Ceramic Core	Ceramic	3.7300	Silicon Dioxide (SiO ₂)	7631-86-9	18.4800%	4.4220%	23.9288%
				Sodium (Na)	7440-23-5	0.3000%	0.0718%	
				Iron(III) Oxide (Fe ₂ O ₃)	1309-37-1	0.6400%	0.1531%	
				Potassium Dioxide (KO ₂)	12030-88-5	0.2900%	0.0694%	
				Magnesium (Mg)	7439-95-4	0.4200%	0.1005%	
				Calcium (Ca)	7440-70-2	0.3000%	0.0718%	
				Aluminum (Al)	7429-90-5	72.9500%	17.4561%	
				Titanium Dioxide (TiO ₂)	13463-67-7	0.2500%	0.0598%	
				Barium (Ba)	7440-39-3	5.9500%	1.4238%	
				Lg Loss	NA	0.4200%	0.1005%	
2	Ceramic Cap	Stainless Steel SWRCH8A	0.2600	Iron (Fe)	7439-89-6	99.3570%	1.6572%	1.6680%
				Copper (Cu)	7440-50-8	0.0260%	0.0004%	
				Nickel (Ni)	7440-02-0	0.0130%	0.0002%	
				Manganese (Mn)	7439-96-5	0.3500%	0.0058%	
				Chromium (Cr)	7440-47-3	0.0200%	0.0003%	
				Carbon (C)	7440-44-0	0.0600%	0.0010%	
				Phosphorus (P)	7723-14-0	0.0800%	0.0013%	
				Silicon (Si)	7440-21-3	0.0200%	0.0003%	
				Ammonium lauryl sulfate (AIS)	2235-54-3	0.0240%	0.0004%	
				Sulfur (S)	7704-34-9	0.0500%	0.0008%	
3	Terminal	Stainless Steel SWRCH8A	0.5375	Iron (Fe)	7439-89-6	99.3570%	3.4260%	3.4482%
				Copper (Cu)	7440-50-8	0.0260%	0.0009%	
				Nickel (Ni)	7440-02-0	0.0130%	0.0004%	
				Manganese (Mn)	7439-96-5	0.3500%	0.0121%	
				Chromium (Cr)	7440-47-3	0.0200%	0.0007%	
				Carbon (C)	7440-44-0	0.0600%	0.0021%	
				Phosphorus (P)	7723-14-0	0.0800%	0.0028%	
				Silicon (Si)	7440-21-3	0.0200%	0.0007%	
				Ammonium lauryl sulfate (AIS)	2235-54-3	0.0240%	0.0008%	
				Sulfur (S)	7704-34-9	0.0500%	0.0017%	
4	Resistive Element	EVNOM Alloy	0.0729	Nickel (Ni)	7440-02-0	74.4000%	0.3479%	0.4677%
				Chromium (Cr)	7440-47-3	20.0000%	0.0935%	
				Aluminum (Al)	7429-90-5	3.5000%	0.0164%	
				Silicon (Si)	7440-21-3	1.0000%	0.0047%	

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				Iron (Fe)	7439-89-6	0.5000%	0.0023%	
				Manganese (Mn)	7439-96-5	0.5000%	0.0023%	
				Copper (Cu)	7440-50-8	0.1000%	0.0005%	
5	Housing	AL6063	7.2000	Silicon (Si)	7440-21-3	0.4200%	0.1940%	46.1897%
				Iron (Fe)	7439-89-6	0.1560%	0.0721%	
				Magnesium (Mg)	7439-95-4	0.5350%	0.2471%	
				Copper (Cu)	7440-50-8	0.0360%	0.0166%	
				Manganese (Mn)	7439-96-5	0.0230%	0.0106%	
				Chromium (Cr)	7440-47-3	0.0100%	0.0046%	
				Zinc (Zn)	7440-66-6	0.0150%	0.0069%	
				Titanium (Ti)	7440-32-6	0.0150%	0.0069%	
				Aluminum (Al)	7429-90-5	98.7900%	45.6308%	
				6	Compound Mold	Epoxy Mold	3.7875	
Phenolic Resin	9003-35-4	8.0000%	1.9438%					
Mineral Fillers	60676-86-0	63.0000%	15.3075%					
Flame Retardants	Trade Secret	8.0000%	1.9438%					
Pigments	Not to Declare	4.0000%	0.9719%					
		Total Weight	15.5879					

This Document was updated on: 10/16/2024

Important remarks:

1. It is the responsibility of the user to verify they are accessing the latest version.
2. Resistive material weight will be different based on the resistance value.
3. The weight of the core and coating material will differ based on the size.