



WERBEL MICROWAVE LLC

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RoHS Compliance Statement

All applicable products manufactured by Werbel Microwave LLC that are designated as RoHS compliant, to the best of our knowledge, meet the requirements for compliance to the RoHS3 (Restriction of Hazardous Substances) Directive as set forth by the European Union Directive 2015/863 within the specified limits:

Lead (Pb) < 0.1% (< 1,000 PPM)	Bis(2-ethylhexyl) phthalate (DEHP) (0.1 %)
Mercury (Hg) < 0.1% (< 1,000 PPM)	Butyl benzyl phthalate (BBP) (0.1 %)
Cadmium (Cd) < 0.01% (< 100 PPM)	Dibutyl phthalate (DBP) (0.1 %)
Hexavalent Chromium (CrVI) < 0.1% (< 1,000 PPM)	Diisobutyl phthalate (DIBP) (0.1 %)
Polybrominated Biphenyls (PBB) < 0.1% (< 1,000 PPM)	
Polybrominated Diphenyl Esters (PbDE) < 0.1% (< 1,000 PPM)	

R.E.A.C.H. Compliance Statement

All applicable products manufactured by Werbel Microwave LLC that are designated as REACH compliant, to the best of our knowledge, do not contain any of the Substances of Very High Concern included on the Candidate List effective 6/16/2014, according to EC Regulation Number 1907/2006 ("REACH"), in concentrations above 0.1% by weight.

Designation/Identification

- * As of 3/9/2018: All products by default use lead free solder and to the best of our knowledge, do not contain the substances in concentrations by weight greater than the specified limits.
- * Products calling for the use of lead solder and/or other materials not in compliance with the RoHS and/or REACH directives are handled on a case-by-case basis by designating a separate part number with mention of materials on the product-specific specification sheet.

Summary

Model:	WMC-2-18-20dB-S	Prepared on:	December 1, 2024
Description:	Coupler, 2-18GHz, 20dB, SMA Female		
RoHS Compliant:	Yes	Weight:	46275.274 mg

Material declarations provided by Werbel Microwave are:

- i. Based on information provided by our suppliers;
- ii. Limited to the date here of.
- iii. Based upon and subject to the material content and compliant methodologies, assumptions and qualifications set forth.
- iv. Provided as a courtesy for informational purposes only and shall not form part of a contract nor warranty.
- v. Subject to change without notice.

Method of quantity/percentage determination based on weight analysis, calculated estimates, or similarity, and represent the materials used at the time of this report.

- 0 in Parts Per Million column indicates less than 1 PPM.
- 0 in Weight column indicates less than 0.001 mg.
- 0 in % column indicates less than 0.01%.

PRODUCT SUMMARY

Constituent	CAS No.	Parts Per Million (PPM)	Weight in mg	%
CHECKSUM		1000000	46275.274	100.00
ALUMINUM	7429-90-5	650887	30119.976	65.09
IRON	7439-89-6	81819	3786.187	8.18
MAGNESIUM	7439-95-4	6683	309.240	0.67
STAINLESS STEEL	12597-68-1	143412	6636.414	14.34
CHROMIUM	7440-47-3	22943	1061.699	2.29
SILICON	7440-21-3	4684	216.769	0.47
NICKEL	7440-02-0	12402	573.924	1.24
COPPER	7440-50-8	1337	61.848	0.13
ZINC	7440-66-6	835	38.655	0.08
MANGANESE	7439-96-5	2297	106.284	0.23
TITANIUM	7440-32-6	501	23.193	0.05
ACRYLIC RESIN	28262-63-7	0	0.000	0.00
POLYESTER	24980-41-4	0	0.000	0.00
CARBON	7440-44-0	69	3.175	0.01
PHOSPHORUS	7723-14-0	23	1.058	0.00
SULFUR	7704-34-9	17	0.794	0.00
FUSED SILICA	60676-86-0	0	0.000	0.00
CONTINUOUS FILAMENT FIBER GLASS	65997-17-3	0	0.000	0.00
CERAMIC FILLER	N/A	0	0.000	0.00
POLYETHYLENE GLYCOL DIMETHACRY	25852-47-5	4	0.180	0.00
CUMENE HYDROPEROXIDE	80-15-9	0	0.020	0.00
BISPHENOL A FUMARATE RESIN	39382-25-7	4	0.180	0.00
SACCHARIN	81-07-2	0	0.020	0.00
BERYLIUM	7440-41-7	0	0.000	0.00
PLATED GOLDC17300	7440-57-5	0	0.000	0.00
PTFE & PEI	9002-84-0	11207	518.584	1.12
ALUMINA - CERAMIC	1344-28-1	53853	2492.068	5.39
PALLADIUM	7440-05-3	28	1.286	0.00
SILVER	7440-22-4	1719	79.557	0.17
RUTHENIUM DIOXIDE	12036-10-1	196	9.066	0.02
SILICON DIOXIDE	7631-86-9	2030	93.949	0.20
MAGNESIUM OXIDE	1309-48-4	449	20.766	0.04
BORON OXIDE	1303-86-2	172	7.956	0.02
EPOXY RESIN - 3	129915-35-1	582	26.936	0.06
COPPER OXIDE	1317-38-0	76	3.507	0.01
CHROME (III) OXIDE	1308-38-9	155	7.194	0.02
MANGANESE DIOXIDE	1313-13-9	26	1.197	0.00
TITANIUM DIOXIDE	13463-67-7	21	0.992	0.00
TIN-100	7440-31-5	1569	72.597	0.16

PRODUCT COMPONENT DETAILS

Constituent	Description	CAS No.	Weight in mg	%
ENCLOSURE			16871.000	100.00
ALUMINUM	ALLOY 6061	7429-90-5	16432.354	97.40
MAGNESIUM	ALLOY 6061	7439-95-4	168.710	1.00
SILICON	ALLOY 6061	7440-21-3	101.226	0.60
IRON	ALLOY 6061	7439-89-6	59.049	0.35
COPPER	ALLOY 6061	7440-50-8	33.742	0.20
CHROMIUM	ALLOY 6061	7440-47-3	29.524	0.18
ZINC	ALLOY 6061	7440-66-6	21.089	0.13
MANGANESE	ALLOY 6061	7439-96-5	12.653	0.08
TITANIUM	ALLOY 6061	7440-32-6	12.653	0.08
COVER(S)			14053.000	100.00
ALUMINUM	ALLOY 6061	7429-90-5	13687.622	97.40
MAGNESIUM	ALLOY 6061	7439-95-4	140.530	1.00
SILICON	ALLOY 6061	7440-21-3	84.318	0.60
IRON	ALLOY 6061	7439-89-6	49.186	0.35
COPPER	ALLOY 6061	7440-50-8	28.106	0.20
CHROMIUM	ALLOY 6061	7440-47-3	24.593	0.18
ZINC	ALLOY 6061	7440-66-6	17.566	0.13
MANGANESE	ALLOY 6061	7439-96-5	10.540	0.08
TITANIUM	ALLOY 6061	7440-32-6	10.540	0.08
HARDWARE			5292.400	100.00
IRON	SS 18-8	7439-89-6	3677.953	69.50
CHROMIUM	SS 18-8	7440-47-3	1007.144	19.03
NICKEL	SS 18-8	7440-02-0	487.959	9.22
MANGANESE	SS 18-8	7439-96-5	83.091	1.57
SILICON	SS 18-8	7440-21-3	31.225	0.59
CARBON	SS 18-8	7440-44-0	3.175	0.06
PHOSPHORUS	SS 18-8	7723-14-0	1.058	0.02
SULFUR	SS 18-8	7704-34-9	0.794	0.02
PRINTED CIRCUIT BOARD			1853.452	
Fused Silica		60676-86-0	Varies	Varies
Continuous Filament Fiber Glass		65997-17-3	Varies	Varies
Ceramic Filler		N/A	Varies	Varies
CLADDING				
Copper		231-159-6	Varies	Varies
Aluminium		231-072-3	Varies	Varies
Zinc		231-175-3	Varies	Varies

PRODUCT COMPONENT DETAILS (CONTINUED)

Constituent	Description	CAS No.	Weight in mg	%
SOLDER WIRE / PASTE / EPOXY			0.400	100.00
POLYETHYLENE GLYCOL DIMETHACRY		25852-47-5	0.180	45.00
CUMENE HYDROPEROXIDE		80-15-9	0.020	5.00
BISPHENOL A FUMARATE RESIN		39382-25-7	0.180	45.00
SACCHARIN		81-07-2	0.020	5.00
CONNECTORS			7304.000	100.00
Stainless Steel	Housing Barrel	12597-68-1	6636.414	90.86
Contact Socket	Center Contact		149.002	2.04
Beryllium	Center Contact	7440-41-7	Varies	Varies
Copper	Center Contact	7440-50-8	Varies	Varies
Plated Gold C17300	Center Contact	7440-57-5	Varies	Varies
PTFE & PEI	Insulators	9002-84-0	518.584	7.10
RESISTORS			2925.000	100.00
ALUMINA - CERAMIC		1344-28-1	2492.068	85.20
PALLADIUM	INNER ELECTRODE	7440-05-3	1.286	0.04
SILVER	INNER ELECTRODE	7440-22-4	79.557	2.72
RUTHENIUM DIOXIDE	RESISTIVE FILM	12036-10-1	9.066	0.31
SILICON DIOXIDE		7631-86-9	93.949	3.21
MAGNESIUM OXIDE		1309-48-4	20.766	0.71
LEAD OXIDE - EXEMPT		1317-36-8	21.496	0.73
BORON OXIDE		1303-86-2	7.956	0.27
CHROMIUM		7440-47-3	0.438	0.01
EPOXY RESIN - 3		129915-35-1	26.936	0.92
COPPER OXIDE		1317-38-0	3.507	0.12
CHROME (III) OXIDE		1308-38-9	7.194	0.25
MANGANESE DIOXIDE		1313-13-9	1.197	0.04
TITANIUM DIOXIDE		13463-67-7	0.992	0.03
NICKEL	BARRIER	7440-02-0	85.964	2.94
TIN-100	PLATING	7440-31-5	72.597	2.48