

Dear customer;

SM Sakamoto  
Product Engineering Dept.  
Fukuimurata Manufacturing Co., Ltd

The content status of PFAS substances in our products

As of the date of issue, and best of our knowledge and based upon the information available to us from our suppliers, our products listed in the appendix do not contain the substance listed in Table 1.

Regarding our products not listed in the appendix, please contact our sales staff.

Respectfully yours,

Table 1. Substance

Substance	Definition within this document	Remark
PFAS	Compounds containing at least one -CF <sub>2</sub> - in the molecule	The definition of PFAS varies across different countries and regions. Considering those, we have defined PFAS as shown on the left to ensure comprehensive coverage and prevent any omissions. This definition covers the definitions shown in Table 2.

Table 2. Definition of PFAS in each government agency

Name	Definition
<p>Environmental Protection agency (EPA)</p>	<p>PFAS is defined as including at least one of these three structures:</p> <ul style="list-style-type: none"> <li>• R-(CF<sub>2</sub>)-CF(R')R", where both the CF<sub>2</sub> and CF moieties are saturated carbons;</li> <li>• R-CF<sub>2</sub>OCF<sub>2</sub>-R', where R and R' can either be F, O, or saturated carbons; and</li> <li>• CF<sub>3</sub>C(CF<sub>3</sub>)R'R", where R' and R" can either be F or saturated carbons.<sup>1)</sup></li> </ul>
<p>European Chemicals Agency (ECHA)</p>	<p>Any substance that contains at least one fully fluorinated methyl (CF<sub>3</sub>-) or methylene (-CF<sub>2</sub>-) carbon atom (without any H/Cl/Br/I attached to it). A substance that only contains the following structural elements is excluded from the scope of the proposed restriction:</p> <p>CF<sub>3</sub>-X or X-CF<sub>2</sub>-X', where X = -OR or -NRR' and X' = methyl (-CH<sub>3</sub>), methylene (-CH<sub>2</sub>-), an aromatic group, a carbonyl group (-C(O)-), -OR'', -SR'' or -NR''R'''; and where R/R'/R''/R''' is a hydrogen (-H), methyl (-CH<sub>3</sub>), methylene (-CH<sub>2</sub>-), an aromatic group or a carbonyl group (-C(O)-).<sup>2)</sup></p>

Table 3. Examples of PFASs included in the definition shown in Table 1<sup>3)</sup>

No.	Substance name
1	Perfluoroalkyl phosphonic and phosphinic acids
2	Perfluoroalkyl carboxylic and dicarboxylic acids
3	Perfluoroalkane sulfonic and sulfinic acids
4	Per- and polyfluoroalkylether carboxylic and sulfonic acids
5	Perfluoroalkanoyl fluorides and their derivatives
6	Perfluoroalkanesulfonyl fluorides and their derivatives
7	n:2 Fluorotelomer-based compounds
8	n:1 Fluorotelomer-based compounds
9	Perfluoroalkylethers, epoxides, and vinyl ethers
10	Perfluoroalkenes and derivatives
11	Specific hydrofluoro-carbons, -ethers, and -olefins
12	Side-chain fluorinated aromatics
13	Fluoropolymers
14	Fluoroelastomers
15	Perfluoropolyethers

- 1) <https://www.govinfo.gov/content/pkg/FR-2023-10-11/pdf/2023-22094.pdf>
- 2) <https://echa.europa.eu/documents/10162/f605d4b5-7c17-7414-8823-b49b9fd43aea>
- 3) [https://one.oecd.org/document/ENV/CBC/MONO\(2022\)1/en/pdf](https://one.oecd.org/document/ENV/CBC/MONO(2022)1/en/pdf)

Appendix List

No.	Murata Part Number	Product Category
1	GR*	Ceramic Capacitor
2	GC*	Ceramic Capacitor
3	GJ*	Ceramic Capacitor
4	GQ*	Ceramic Capacitor
5	GA*	Ceramic Capacitor
6	ZR*	Ceramic Capacitor
7	GM*	Ceramic Capacitor
8	GW*	Ceramic Capacitor
9	LL*	Ceramic Capacitor
10	NFM*	EMI FILTER

Dear customer;

SM Kashiwai  
Product Engineering Dept.  
Izumomurata Manufacturing Co., Ltd

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11	Specific hydrofluoro-carbons, -ethers, and -olefins
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Appendix List

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1	EV*	Ceramic Capacitor
2	DC*	Ceramic Capacitor
3	DD*	Ceramic Capacitor
4	DE*	Ceramic Capacitor
5	DH*	Ceramic Capacitor
6	DK*	Ceramic Capacitor
7	GD*	Ceramic Capacitor
8	KA*	Ceramic Capacitor
9	KC*	Ceramic Capacitor
10	KR*	Ceramic Capacitor
11	RC*	Ceramic Capacitor
12	RD*	Ceramic Capacitor
13	RH*	Ceramic Capacitor
14	RP*	Ceramic Capacitor



Document No: QH-23068  
Date of issue: 2024-02-13  
Update date: 2024-05-23

Dear customer;

GM Harada  
Quality Assurance Dept.  
Murata Manufacturing Co., Ltd

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No.	Murata Part Number	Product Category
1	#458*	Transformers/Sprriters
2	#617*	Transformers/Sprriters/Distributers
3	#844*	Transformers
4	#857CM*	Transformers
5	#857DS*	Transformers
6	#944*	Transformers
7	#A914*	Ferrite Inductors
8	#A915*	Ferrite Inductors
9	#A916*	Ferrite Inductors
10	#A920*	Ferrite Inductors
11	#A921*	Ferrite Inductors
12	#B952*	Ferrite Inductors
13	#B953*	Ferrite Inductors
14	#B966*	Ferrite Inductors
15	#FSLB*	Inductors
16	#FSLM*	Inductors
17	?1301*	LF Antenna Coil
18	?1320*	LF Antenna Coil
19	1003*	LF Antenna Coil
20	1084*	LF Antenna Coil
21	1085*	LF Antenna Coil
22	1088*	LF Antenna Coil
23	1120*	LF Antenna Coil
24	1133*	LF Antenna Coil
25	1143*	LF Antenna Coil
26	1144*	LF Antenna Coil
27	1217*	Ferrite Inductors
28	1225*	Ferrite Inductors
29	1226*	Ferrite Inductors
30	1227*	Ferrite Inductors
31	1229*	Ferrite Inductors
32	1231*	Ferrite Inductors
33	1235*	Ferrite Inductors
34	1239*	Metal Alloy Inductors
35	1248*	Ferrite Inductors
36	1253*	Ferrite Inductors
37	1255*	Ferrite Inductors
38	1259CM*	Common Mode Choke
39	1264*	Ferrite Inductors
40	1267*	Ferrite Inductors
41	1269*	Metal Alloy Inductors
42	1273*	Ferrite Inductors
43	1274*	Ferrite Inductors
44	1276*	Metal Alloy Inductors
45	1277*	Metal Alloy Inductors
46	1285*	Metal Alloy Inductors
47	1286*	Metal Alloy Inductors
48	1335*	LF Antenna Coil
49	1345*	LF Antenna Coil
50	1372*	LF Antenna Coil
51	7BB-*	Piezoelectric Diaphragms
52	7NB-*	Piezoelectric Diaphragms
53	93MC????????	MOS Capacitor

No.	Murata Part Number	Product Category
54	945*	LF Antenna Coil
55	A1007AY*	Inductors
56	B1047*	Ferrite Inductors
57	BL01*	Ferrite Beads
58	BL02*	Ferrite Beads
59	BLA*	Chip Ferrite Beads Array
60	BLF02RD*	Chip Ferrite Beads
61	BLF03RD*	Chip Ferrite Beads
62	BLM02BB*	Chip Ferrite Beads
63	BLM02BC*	Chip Ferrite Beads
64	BLM03BB*	Chip Ferrite Beads
65	BLM03BC*	Chip Ferrite Beads
66	BLM03BD*	Chip Ferrite Beads
67	BLM03EB*	Chip Ferrite Beads
68	BLM03H????S*	Chip Ferrite Beads
69	BLM15AG*SH*	Chip Ferrite Beads
70	BLM15AG??????11*	Chip Ferrite Beads
71	BLM15AX??????11*	Chip Ferrite Beads
72	BLM15BA*	Chip Ferrite Beads
73	BLM15BB*	Chip Ferrite Beads
74	BLM15BC*	Chip Ferrite Beads
75	BLM15BD*	Chip Ferrite Beads
76	BLM15G*	Chip Ferrite Beads
77	BLM15H*	Chip Ferrite Beads
78	BLM15KD??????11*	Chip Ferrite Beads
79	BLM15PD??????11*	Chip Ferrite Beads
80	BLM15PE*	Chip Ferrite Beads
81	BLM15PG??????11*	Chip Ferrite Beads
82	BLM15PX*BH*	Chip Ferrite Beads
83	BLM15PX*SH*	Chip Ferrite Beads
84	BLM15PX??????11*	Chip Ferrite Beads
85	BLM18*	Chip Ferrite Beads
86	BLM21*	Chip Ferrite Beads
87	BLM31*	Chip Ferrite Beads
88	BLM41*	Chip Ferrite Beads
89	BNX*	EMIFILL
90	CE*	Isolator
91	CSTCC*	Chip Cermic Resonators MHz Type
92	CSTCE*	Chip Cermic Resonators MHz Type
93	CSTCR*	Chip Cermic Resonators MHz Type
94	CSTNE*	Chip Cermic Resonators MHz Type
95	CSTNR*	Chip Cermic Resonators MHz Type
96	DC*	Ceramic Capacitor
97	DD*	Ceramic Capacitor
98	DD1277*	Metal Alloy Inductors
99	DE*	Ceramic Capacitor
100	DEM8045Z*	Ferrite Inductors
101	DF*	Dielectric filter
102	DFE1*	Metal Alloy Inductors
103	DFE2*	Metal Alloy Inductors
104	DFE3*	Metal Alloy Inductors
105	DFEG*	Metal Alloy Inductors
106	DFEH*	Metal Alloy Inductors

No.	Murata Part Number	Product Category
107	DFL*	Metal Alloy Inductors
108	DFM*	Inductors
109	DH*	Ceramic Capacitor
110	DK*	Ceramic Capacitor
111	DL*	EMIFILL
112	DSS1*	EMIFILL
113	DX*	Microchip Transformer
114	EV*	Ceramic Capacitor
115	FCUL*	Metal Alloy Inductors
116	FDA*	Metal Alloy Inductors
117	FDSD*	Metal Alloy Inductors
118	FDU*	Metal Alloy Inductors
119	FDUE*	Metal Alloy Inductors
120	FDV*	Metal Alloy Inductors
121	FDVE*	Metal Alloy Inductors
122	G2J*	Ceramic Capacitor
123	G4J*	Ceramic Capacitor
124	G6J*	Ceramic Capacitor
125	G7J*	Ceramic Capacitor
126	GA*	Ceramic Capacitor
127	GB*	Ceramic Capacitor
128	GC*	Ceramic Capacitor
129	GD*	Ceramic Capacitor
130	GJ*	Ceramic Capacitor
131	GJ*	Ceramic Capacitor
132	GM*	Ceramic Capacitor
133	GQ*	Ceramic Capacitor
134	GR*	Ceramic Capacitor
135	GW*	Ceramic Capacitor
136	HEAWS*	Inductors
137	KA*	Ceramic Capacitor
138	KC*	Ceramic Capacitor
139	KR*	Ceramic Capacitor
140	LDB*	Chip Multilayer Hybrid Balun
141	LDC*	Chip Multilayer Hybrid Coupler
142	LDD*	Chip Multilayer Hybrid Divider
143	LDE*	Chip Multilayer Dual Line
144	LDF*	Chip Multilayer Functional Device
145	LDH*	Chip Multilayer Delayline
146	LDJ*	Chip Multilayer Hybrid Coupler
147	LDM*	Chip Multilayer Hybrid Balun
148	LFB*	Chip Multilayer LC Filter
149	LFD*	Chip Multilayer Diplexer/Triplexer
150	LFE*	Chip Multilayer LC Filter
151	LFG*	Chip Multilayer GIGAFIL
152	LFH*	Chip Multilayer LC Filter
153	LFL*	Chip Multilayer LC Filter
154	LFP*	Chip Multilayer LC Filter
155	LL*	Ceramic Capacitor
156	LL1608-FHL*	Inductors
157	LL1608-FSL*	Inductors
158	LL2012-FHL*	Inductors
159	LLM3225*	Inductors

No.	Murata Part Number	Product Category
160	LQ*	INDUCTOR
161	LXES*A*	ESD Protection Device
162	LXES*D*	Common Mode ESD Filter
163	LXLC*	L Cancel Transformer
164	LXPC*	Parasitic Element Coupling Devise
165	MBH*	Ferrite Inductors
166	MDH*	Ferrite Inductors
167	MDT*	Inductors
168	MFD*	Inductors
169	MSA*	LF Antenna Coil
170	NC*	NTC Thermistor
171	NFA*	EMIFILL
172	NFE*	EMIFILL
173	NFG*	EMIFILL
174	NFL*	EMIFILL
175	NFM*	EMI FILTER
176	NFP*	EMIFILL
177	NFW*	EMIFILL
178	NFZ03*	EMIFILL
179	NFZ15SF*	EMIFILL
180	NFZ15SG*	EMIFILL
181	NXF*	NTC Thermistor
182	NXR*	NTC Thermistor
183	PKLCS*	Chip Piezoelectric Sounders
184	PKMCS*	Chip Piezoelectric Sounders
185	PLT09*	EMIFILL
186	PLT10*	EMIFILL
187	PLT5*	EMIFILL
188	PRF*	PTC Thermistor
189	PRG*	PTC Thermistor
190	PTFL*	PTC Thermistor
191	PTGL*	PTC Thermistor
192	PTWE*	PTC Thermistor
193	RC*	Ceramic Capacitor
194	RD*	Ceramic Capacitor
195	RH*	Ceramic Capacitor
196	RP*	Ceramic Capacitor
197	SA*	SAW Component
198	TDF*	Dielectric filter
199	TMS*	LF Antenna Coil
200	UCMH90*	Common Mode Choke
201	WA*	Ceramic Capacitor
202	WC*	Ceramic Capacitor
203	WR*	Ceramic Capacitor
204	X9*	Optical Devices
205	XRCGA*	Chip Crystal Units
206	XRCGB*	Chip Crystal Units
207	XRCGE*	Chip Crystal Units for Automotive
208	XRCHA*	Chip Crystal Units for Consumer
209	XRCPB*F*	Chip Crystal Units for Consumer
210	ZR*	Ceramic Capacitor

No.	Murata Part Number	Product Category
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<Note>

? : 任意の 1 つの数字文字に一致するワイルドカード (? : Wildcard matching any single numeric character.)

\* : 任意の数の文字に一致するワイルドカード。 (\* : Wildcard matching any number of characters.)

生産中止品は対象外です。 (Not covered to discontinued the product.)