Materials Declaration Form

IPC **Form Type ***	**1752** Distribute	**Version**	**2**
Sectionals *	Material Info Manufacturing Info	**Subsectionals ***	A-D **** : Required Field***

Supplier Information			
Company Name *	STMicroelectronics	**Response Date ***	31-05-2023
Company Unique ID	NL 008751171B01		
Contact Name *	Refer to Supplier Comment section		Refer to Supplier Comment section
Contact Phone *	Refer to Supplier Comment section	**Contact Email ***	Refer to Supplier Comment section
Authorized Representative *	MDG MD CHAMPION	**Representative Title**	MDG MD CHAMPION
Representative Phone *	Refer to Supplier Comment section	**Representative Email ***	Refer to Supplier Comment section
Supplier Comment	Online Technical Support - STMicroelectronics : http://www.st.com/web/en/support/support.html		

Uncertainty Statement

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Legal Statement

Supplier Acceptance *	true	**Legal Declaration ***	Standard
Legal Statement	Supplier certifies that it gathered the provided information and such information is true and correct to the best of its knowledge and belief, as of the date that Supplier completes this form. Supplier acknowledges that Company will rely on this certification in determining the compliance of its products. Company acknowledges that Supplier may have relied on information provided by others in completing this form, and that Supplier may not have independently verified such information. However, in situations where Supplier has not independently verified information provided by others, Supplier agrees that, at a minimum, its suppliers have provided certifications regarding their contributions to the part(s), and those certifications are at least as omprehensive as the certification in this paragraph. If the Company and the Supplier enter into a written agreement with respect to the identified part(s), the terms and conditions of that agreement, including any warranty rights and/or remedies provided as part of that agreement, will be the sole and exclusive source of the Supplier’s liability and the Company’s remedies for issues that arise regarding information the Supplier provides in this form.		

Signature Not Verified

Digitally signed by MDF Champion
Date: 2023.05.31
19:45:25 +02:00

Product				
Mfr Item Number	**Mfr Item Name**	**Version**	**Mfr Site**	**Date**
M24M02E-FMN6TP	PHO7*24M20VA	A	3068	31-05-2023
	Amount	UoM	**Unit type**	**ST ECOPACK Grade**
	80.00	mg	Each	ECOPACK® 2
.	Comment	ECOPACK® 2 is STMicroelectronics trade name for ROHS compliant device without Brominated and Chlorinated compound (900ppm) and without Antimony oxide flame retardant (in each organic material)		

Manufacturing information				
J-STD-020 MSL Rating	**Classification Temp**	**Nbr of Reflow Cycles**		
1	260	3		
bulk Solder Termination	**Terminal Plating**	**Terminal Base Alloy**	**Comment**	
NAC	Nickel/Palladium/Gold (Ni/Pd/Au)	Copper Alloy		

Package Designator	**Size**	**Nbr of instances**	**Shape**	
SON	NAC	8	Gull Wing	
Comment	Package : O7 SO 08 .15 JEDEC 0016023			

QueryList : RoHS Directive 2011/65/EU-July 2011 – Annex II amended by Directive 2015/863-April 2015	
Query	**Response**
1 - Product(s) meets EU RoHS requirement without any exemptions	**TRUE**
2 - Product(s) meets EU RoHS requirements except lead in solder and this usage may qualify under the lead in solder '7b' exemption (other selected exemptions may apply)	FALSE
3 - Product(s) meets EU RoHS requirements by application of the selected exemption(s)	FALSE
4 - Product(s) does not meet EU RoHS requirements and is not under exemptions	FALSE

Exemption Id.	**Description**

QueryList : REACH-10 Jun 2022	
Query	**Response**
1 - Product(s) does not contain REACH Substances Of Very High Concern above the limits per the definition within REACH	**TRUE**

CategoryLevel_Name	CategoryLevel_Threshold	amount in product (mg)	Application	ppm in product

Material Composition Declaration : note : Substance present with less 0.001mg will not be declared in this document						**Mfr Item Name**	**PHO7*24M20VA**				6999999.0	1000023.5
Homogeneous Material	**Material Group**	Mass	**UoM**	**Level**	**Substance Category**	**Substance**	**CAS**	**Exempt**	Mass	**UoM**	**Concentration in homogeneous material (ppm)**	**Concentration in product (ppm)**
Die or dies	M-011 Other inorganic materials	2.049	mg	supplier	die	Silicon (Si)	7440-21-3		1.966	mg	959492	24575
				supplier	metallization	Aluminium (Al)	7429-90-5		0.007	mg	3416	87
				supplier	metallization	Copper (Cu)	7440-50-8		0.024	mg	11713	300
				supplier	metallization	Tantalum (Ta)	7440-25-7		0.003	mg	1464	37
				supplier	metallization	Titanium (Ti)	7440-32-6		0.004	mg	1952	50
				supplier	Passivation	Silicon Nitride	12033-89-5		0.006	mg	2928	75
				supplier	Passivation	Silicon Oxide	7631-86-9		0.039	mg	19034	487
Lead-frame	M-011 Other inorganic materials	17.694	mg	supplier	alloy	Copper (Cu)	7440-50-8		17.243	mg	974500	215533
				supplier	alloy	Iron (Fe)	7439-89-6		0.415	mg	23460	5189
				supplier	alloy	Zinc (Zn)	7440-66-6		0.021	mg	1200	265
				supplier	alloy	Iron Phosphide (FeP)	26508-33-8		0.015	mg	840	186
Lead-frame Coating	M-011 Other inorganic materials	0.076	mg	supplier	coating	Nickel (Ni)	7440-02-0		0.071	mg	940951	890
				supplier	coating	Palladium (Pd)	7440-05-3		0.002	mg	30507	29
				supplier	coating	Gold (Au)	7440-57-5		0.002	mg	28542	27
Die Attach	M-011 Other inorganic materials	0.721	mg	supplier	glue or soft solder	Silver (Ag)	7440-22-4		0.649	mg	900000	8108
				supplier	glue or soft solder	acrylate	Proprietary		0.043	mg	60000	541
				supplier	glue or soft solder	Methacrylate	Proprietary		0.027	mg	38000	342
				supplier	glue or soft solder	acrylate	Proprietary		0.001	mg	2000	18
Wires	M-011 Other inorganic materials	0.029	mg	supplier	Bonding wire	Gold (Au)	7440-57-5		0.029	mg	1000000	365
Encapsulation	M-011 Other inorganic materials	59.433	mg	supplier	Moulding Compound	Epoxy Resin	Proprietary		4.557	mg	76673	56961
				supplier	Moulding Compound	Phenol Resin	Proprietary		3.038	mg	51116	37974
				supplier	Moulding Compound	Silica, vitreous	60676-86-0		51.291	mg	863010	641139
				supplier	Moulding Compound	Carbon-black	1333-86-4		0.304	mg	5112	3797
				supplier	Bismuth/Bismuth Compounds	Bismuth	7440-69-9		0.243	mg	4089	3038
Finishing	M-011 Other inorganic materials	0.001	mg	supplier	connections coating	Nickel (Ni)	7440-02-0		0.001	mg	940951	9
				supplier	connections coating	Palladium (Pd)	7440-05-3		0.000	mg	30507	0
				supplier	connections coating	Gold (Au)	7440-57-5		0.000	mg	28542	0