

## **Materials Declaration Form**

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

Supplier Information			
Company Name *	STMicroelectronics	Response Date *	24-08-2022
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 - STMicro http://www.st.com/web/en/suppo		

## **Uncertainty Statement**

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Legal Statement			
Supplier Acceptance *	true	Legal Declaration *	Standard
Legal Statement	and belief, as of the date that Suppli determining the compliance of its prod completing this form, and that Supp Supplier has not independently ver provided certifications regarding their certification in this paragraph. If the part(s), the terms and conditions	e provided information and such information er completes this form. Supplier acknowledges ucts. Company acknowledges that Supplier may lo plier may not have independently verified su fied information provided by others, Supplier contributions to the part(s), and those certif Company and the Supplier enter into a write of that agreement, including any warranty rig ive source of the Supplier's liability and the Cor is form.	that Company will rely on this certification is have relied on information provided by others is uch information. However, in situations wher agrees that, at a minimum, its suppliers hav fications are at least as omprehensive as the itten agreement with respect to the identifie ghts and/or remedies provided as part of the

Product								
Mfr Item Number	Mfr Item Name	Version	Mfr Site	Date				
M24C32-DRMN8TP/K	PHO7*24321KV	A 3068		24-08-2022				
	Amount	UoM	Unit type	ST ECOPACK Grade				
	80.00	mg	Each	ECOPACK <sup>®</sup> 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	life.augmented				
				mordag.nemea				
NAC	Nickel/Palladium/Gold (Ni/Pd/Au)	Copper Alloy						

Package Designator	age Designator Size		Shape	
SON STDJEDEC		8	Gull Wing	
Comment	Package : O7 SO 08 .15 JEDEC 001602	3		

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 requireme	nt 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)								
3 - Product(s) meets EU RoHS requirements by application of the selected exemption(s)								
4 - Product(s) does not meet EU RoHS re	4 - Product(s) does not meet EU RoHS requirements and is not under exemptions							
Exemption Id.	Exemption Id. Description							

QueryList : REACH-17 Jan 2022								
Query								
1 - Product(s) does not contain REACH Substances Of Very High Concern above the limits per the definition within REACH								
CategoryLevel_Name CategoryLevel_Threshold amount in product (mg) Application								

<b>Naterial Composition Declaration :</b> ote : Substance present with less 0.001mg will not be declared in this document					Mfr Item Name	PHO7*243	321KV			700000.0	999999.5	
Homogeneous Material	Material Group	Mass	UoM	Level	Substance Category	Substance	CAS E	xempt	Mass	UoM	Concentration in homogeneous material (ppm)	Concentration in product (ppm)
Die or dies	M-011 Other inorganic materials	0.647	mg	supplier	die	Silicon (Si)	7440-21-3		0.623	mg	962906	7787
				supplier	metallization	Aluminium (Al)	7429-90-5		0.002	mg	3091	25
				supplier	Passivation	Silicon Nitride	12033-89-5		0.002	mg	3091	25
				supplier	Passivation	Silicon Oxide	7631-86-9		0.020	mg	30912	250
Lead-frame	M-011 Other inorganic materials	18.738	mg	supplier	alloy	Copper (Cu)	7440-50-8		18.260	mg	974500	228254
				supplier	alloy	Iron (Fe)	7439-89-6		0.440	mg	23460	5495
				supplier	alloy	Zinc (Zn)	7440-66-6		0.022	mg	1200	281
				supplier	alloy	Iron Phosphide (FeP)	26508-33-8		0.016	mg	840	197
Lead-frame Coating	M-011 Other inorganic materials	0.124	mg	supplier	coating	Nickel (Ni)	7440-02-0		0.114	mg	916800	1425
				supplier	coating	Palladium (Pd)	7440-05-3		0.007	mg	58700	91
				supplier	coating	Gold (Au)	7440-57-5		0.003	mg	24500	38
Die Attach	M-011 Other inorganic materials	1.027	mg	supplier	glue or soft solder	Silver (Ag)	7440-22-4		0.925	mg	900000	11557
				supplier	glue or soft solder	acrylate	Proprietary		0.062	mg	60000	770
				supplier	glue or soft solder	Methacrylate	Proprietary		0.039	mg	38000	488
				supplier	glue or soft solder	acrylate	Proprietary		0.002	mg	2000	26
Wires	M-011 Other inorganic materials	0.062	mg	supplier	Bonding wire	Gold (Au)	7440-57-5		0.062	mg	1000000	776
Encapsulation	M-011 Other inorganic materials	59.400	mg	supplier	Moulding Compound	Epoxy Resin	Proprietary		3.938	mg	66298	49226
				supplier	Moulding Compound	Phenol Resin	Proprietary		2.625	mg	44199	32818
				supplier	Moulding Compound	Silica, vitreous	60676-86-0		52.364	mg	881547	654547
				supplier	Moulding Compound	Carbon-black	1333-86-4		0.263	mg	4420	3282
				supplier	Bismuth/Bismuth Compounds	Bismuth	7440-69-9		0.210	mg	3536	2625
Finishing	M-011 Other inorganic materials	0.001	mg	supplier	connections coating	Nickel (Ni)	7440-02-0		0.001	mg	916800	14
				supplier	connections coating	Palladium (Pd)	7440-05-3		0.000	mg	58700	1
				supplier	connections coating	Gold (Au)	7440-57-5		0.000	mg	24500	0