Materials Declaration Form

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

Supplier Information			
Company Name *	STMicroelectronics	**Response Date ***	2023-12-04
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 *	Material Declaration champion	**Representative Title**	Material Declaration 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: 2023.04.12
11:48:39 +08:00

Product				
Mfr Item Number	**Mfr Item Name**	**Version**	**Mfr Site**	**Date**
STM32WL33KCV7TR	F342*4L0XXXB	A	P1C7	2023-12-04
	Amount	UoM	**Unit type**	**ST ECOPACK Grade**
	74.73	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**		
3	260	3		
bulk Solder Termination	**Terminal Plating**	**Terminal Base Alloy**	**Comment**	
Not Applicable ; if coating is used or other bulk termaination : add in comments	Nickel/Palladium/Gold (Ni/Pd/Au)	Copper Alloy		

Package Designator	**Size**	**Nbr of instances**	**Shape**	
QFN	5x5x1.0	32	flat	
Comment	Package : 42 VFQFPN 5X5x1.0 32L PITCH 0.5 7376875			

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**	**F342*4L0XXXB**				5999999.0	999988.3
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	5.609	mg	supplier	die	Silicon (Si)	7440-21-3		5.325	mg	949367	71257
				supplier	metallization	Aluminium (Al)	7429-90-5		0.014	mg	2496	187
				supplier	metallization	Copper (Cu)	7440-50-8		0.120	mg	21394	1606
				supplier	metallization	Tantalum (Ta)	7440-25-7		0.039	mg	6953	522
				supplier	metallization	Titanium (Ti)	7440-32-6		0.001	mg	178	13
				supplier	metallization	Tungsten (W)	7440-33-7		0.001	mg	178	13
				supplier	Passivation	Silicon Nitride	12033-89-5		0.031	mg	5527	415
				supplier	Passivation	Silicon Oxide	7631-86-9		0.078	mg	13906	1044
Leadframe (C194)	Copper & its alloys	35.083	mg	supplier	Leadframe	Copper (Cu)	7440-50-8		34.304	mg	977802	459045
				supplier	Leadframe	Iron (Fe)	7439-89-6		0.743	mg	21169	9938
				supplier	Leadframe	Zinc (Zn)	7440-66-6		0.034	mg	961	451
				supplier	Leadframe	Phosphorus (P)	7723-14-0		0.002	mg	67	32
cDAF (625P8C)	Precious metals	0.852	mg	supplier	Glue or tape	Silver (Ag)	7440-22-4		0.300	mg	352448	4019
				supplier	Glue or tape	Copper (Cu)	7440-50-8		0.360	mg	421944	4811
				supplier	Glue or tape	2-Propenenitrile, polymer with 1,3-butadiene,	68610-41-3		0.074	mg	86737	989
				supplier	Glue or tape	Epoxy Resin	29690-82-2		0.031	mg	35868	409
				supplier	Glue or tape	Formaldehyde, polymer with benzenamine, m	67784-74-1		0.031	mg	35868	409
				supplier	Glue or tape	Amines, C36-alkylenedi-, polymers with 5,5'-[(	1224691-98-8		0.031	mg	35868	409
				supplier	Glue or tape	(CHLOROMETHYL)OXIRANE, 4,4'-(1-METHYLET	25068-38-6		0.005	mg	5500	63
				supplier	Glue or tape	Others	Proprietary		0.022	mg	25766	294
Bonding wire (CuPd)	Precious metals	0.226	mg	supplier	Bonding wire	Copper (Cu)	7440-50-8		0.216	mg	951663	2884
				supplier	Bonding wire	Palladium (Pd)	7440-05-3		0.009	mg	40855	124
				supplier	Bonding wire	Gold (Au)	7440-57-5		0.002	mg	7481	23
Encapsulation (CEL 9240ZHF10W)	M-011 Other inorganic materials	32.662	mg	supplier	Molding Compound	Silica vitreous	60676-86-0		28.743	mg	880001	384630
				supplier	Molding Compound	Biphenyl epoxy resin	85954-11-6		1.633	mg	50000	21854
				supplier	Molding Compound	Phenolic resin	205830-20-2		1.274	mg	39000	17046
				supplier	Molding Compound	Epoxy type resin A	Proprietary		0.653	mg	20000	8742
				supplier	Molding Compound	Epoxy type resin B	Proprietary		0.294	mg	9000	3934
				supplier	Molding Compound	Carbon black	1333-86-4		0.065	mg	2000	874
External Plating (Ni/Pd/Au)	M-011 Other inorganic materials	0.295	mg	supplier	Plating	Nickel (Ni)	7440-02-0		0.271	mg	918364	3630
				supplier	Plating	Palladium (Pd)	7440-05-3		0.021	mg	69875	276