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 ***	**17-02-2023**
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 *	**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: 2023.02.17
11:28:14 -08:00

Product

Mfr Item Number	Mfr Item Name	Version	Mfr Site	Date
STM32G473CEU3 STM32G473CEU3TR	7FMI*469XXXX	A	998Z	17-02-2023
	Amount	UoM	**Unit type**	**ST ECOPACK Grade**
	103.42	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 termination	Tin (Sn), immersion	Copper Alloy	

Package Designator	Size	Nbr of instances	Shape	
QFN	7x7x0.55	48	flat	
Comment	Package : A0B9 UFQFPN 7X7X0.55 48L 0.5 MM PITCH 8202210			

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**	**7FMI*469XXXX**				6000000.0	1000047.5
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	6.180	mg	supplier	die	Silicon (Si)	7440-21-3		5.592	mg	904854	54071
				supplier	metallization	Aluminium (Al)	7429-90-5		0.028	mg	4531	271
				supplier	metallization	Copper (Cu)	7440-50-8		0.249	mg	40291	2408
				supplier	metallization	Cobalt (Co)	7440-48-4		0.001	mg	162	10
				supplier	metallization	Tantalum (Ta)	7440-25-7		0.081	mg	13107	783
				supplier	metallization	Titanium (Ti)	7440-32-6		0.003	mg	485	29
				supplier	metallization	Tungsten (W)	7440-33-7		0.002	mg	324	19
				supplier	Passivation	Silicon Nitride	12033-89-5		0.063	mg	10194	609
				supplier	Passivation	Silicon Oxide	7631-86-9		0.161	mg	26052	1557
Glue epoxy (EN4900GC-SD)	M-011 Other inorganic materials	2.067	mg	Supplier	Organic Compounds	Acrylic resin	Trade Secret		0.145	mg	70000	1399
				Supplier	Organic Compounds	Polybutadiene derivative	Trade Secret		0.041	mg	20000	400
				Supplier	Organic Compounds	Butadiene copolymer	Trade Secret		0.031	mg	15000	300
				Supplier	Organic Compounds	Acrylate	Trade Secret		0.112	mg	54000	1079
				Supplier	Organic Compounds	Epoxy resin	Trade Secret		0.062	mg	30000	600
				Supplier	Organic Compounds	Peroxide	Trade Secret		0.017	mg	8000	160
				Supplier	Organic Compounds	Additive	Trade Secret		0.037	mg	18000	360
				Supplier	Metals	Silver	7440-22-4		1.623	mg	785000	15691
Encapsulation (EME-G770)	M-011 Other inorganic materials	32.496	mg	Supplier	Organic Compounds	Epoxy Resin A	Trade Secret		0.682	mg	21000	6599
				Supplier	Organic Compounds	Epoxy Resin B	Trade Secret		0.682	mg	21000	6599
				Supplier	Organic Compounds	Phenol Resin A	Trade Secret		0.682	mg	21000	6599
				Supplier	Glass	Silica(Amorphous)A	60676-86-0		25.362	mg	780450	245240
				Supplier	Glass	Silica(Amorphous)B	7631-86-9		3.747	mg	115320	36237
				Supplier	Organic Compounds	Carbon Black	1333-86-4		0.202	mg	6230	1958
				Supplier	Metallic compounds	Metal Hydroxide	Trade Secret		0.455	mg	14000	4399
				Supplier	Organic Compounds	Phenol Resin B	Trade Secret		0.682	mg	21000	6599
Wire (Au 3N)	Bonding Wire	0.568	mg	Supplier	Metals	Gold	7440-57-5		0.568	mg	1000000	5488
Plating Anode (Pure Tin)	M-011 Other inorganic materials	1.078	mg	Supplier	Metals	Tin	7440-31-5		1.078	mg	1000000	10428
Leadframe (C7025+Ag)	Copper & its alloys	61.032	mg	Supplier	Metals	Copper	7440-50-8		55.975	mg	917140	541257
				Supplier	Metals	Nickel	7440-02-0		1.373	mg	22500	13279
				Supplier	Metals	Silicon	7440-21-3		0.159	mg	2600	1534
				Supplier	Metals	Magnesium	7439-95-4		0.070	mg	1150	679
				Supplier	Metals	Siliver	7440-22-4		3.455	mg	56610	33409