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 ***	30-08-2022
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 *	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: 2022.08.30
02:22:10 +08:00

Product

Mfr Item Number	Mfr Item Name	Version	Mfr Site	Date
STM8L151K6U3 STM8L151K6U3TR	F4MG*764XXXY	A	P1C7	30-08-2022
	Amount	UoM	**Unit type**	**ST ECOPACK Grade**
	48.87	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	Nickel/Palladium/Gold (Ni/Pd/Au)	Copper Alloy	

Package Designator	Size	Nbr of instances	Shape	
QFN	5x5x0.55	32	flat	
Comment	Package : A0B8 UFQFPN 5X5X0.55 32L 0.5 MM PITCH 8202208			

QueryList : RoHS Directive 2011/65/EU- 8 June 2011 – Annex II amended by Delegated Directive 2015/863 - 31 March 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**	**F4MG*764XXXY**				6000000.0	999997.0
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	1.886	mg	supplier	die	Silicon (Si)	7440-21-3		1.747	mg	926299	35746
				supplier	metallization	Aluminium (Al)	7429-90-5		0.012	mg	6363	246
				supplier	metallization	Copper (Cu)	7440-50-8		0.040	mg	21209	818
				supplier	metallization	Tantalum (Ta)	7440-25-7		0.005	mg	2651	102
				supplier	metallization	Titanium (Ti)	7440-32-6		0.006	mg	3181	123
				supplier	Passivation	Silicon Nitride	12033-89-5		0.011	mg	5832	225
				supplier	Passivation	Silicon Oxide	7631-86-9		0.065	mg	34464	1330
Die Attach	M-011 Other inorganic materials	0.181	mg	Supplier	Metals	Silver (Ag)	7440-22-4		0.145	mg	800000	2971
				Supplier	Plastics/polymers	methylene diacrylate	42594-17-2		0.024	mg	134000	498
				Supplier	Polymers	Dicyclopentenyloxyethyl methacrylate	68586-19-6		0.005	mg	25000	93
				Supplier	Organic Compounds	Polybutadiene Anhydride	Proprietary		0.005	mg	30000	111
				Supplier	Epoxy Resin	Epoxycyclohexylethyltrimethoxysilane	3388-04-3		0.001	mg	5000	19
				Supplier	Amines	Bis(α,α-dimethylbenzyl) peroxide	80-43-3		0.001	mg	5000	19
				Supplier	Metallic compounds	Palladium (Pd)	7440-05-3		0.000	mg	1000	4
Mold Compound	M-011 Other inorganic materials	19.547	mg	Supplier	Glass	silica vitreous	60676-86-0		17.384	mg	889327	355700
				Supplier	Phenol Resin	Biphenyl epoxy resin	85954-11-6		0.901	mg	46114	18444
				Supplier	Phenol Resin	Phenolic resin	205830-20-2		0.703	mg	35969	14386
				Supplier	Epoxy Resin	Epoxy resin	Proprietary		0.361	mg	18446	7378
				Supplier	Glass	carbon black	1333-86-4		0.036	mg	1845	738
				Supplier	Glass	other	Proprietary		0.162	mg	8300	3320
Bonding wire	M-011 Other inorganic materials	0.199	mg	Supplier	Metals	Silver	7440-22-4		0.191	mg	960000	3914
				Supplier	Metals	Others	Proprietary		0.008	mg	40000	163
Lead frame	M-011 Other inorganic materials	27.000	mg	Supplier	Metals	Copper (Cu)	7440-50-8		26.312	mg	974500	538369
				Supplier	Metals	Iron (Fe)	7439-89-6		0.619	mg	22920	12662
				Supplier	Metals	Iron Phosphide (Fe2P)	1310-43-6		0.037	mg	1380	762
				Supplier	Metals	Zinc (Zn)	7440-66-6		0.032	mg	1200	663
Leadframe plating	M-011 Other inorganic materials	0.058	mg	Supplier	Metals	Nickel (Ni)	7440-02-0		0.053	mg	916800	1094
				Supplier	Metals	Palladium (Pd)	7440-05-3		0.003	mg	58700	70
				Supplier	Metals	Gold (Au)	7440-57-5		0.001	mg	24500	29