



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 *	2021-10-07
Company Unique ID	NL 008751171B01		
Contact Name *	Refer to Supplier Comment section	Contact Email *	Refer to Supplier Comment section
Contact Phone *	Refer to Supplier Comment section		Refer to Supplier Comment section
Authorized Representative *	Floriana SAN BIAGIO	Representative Title	AMS 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 comprehensive 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.

Product				
Mfr Item Number	Mfr Item Name	Version	Mfr Site	Date
	MQCZ*UBFNAB5	A	996H	2021-10-07
Amount	UoM	Unit type	ST ECOPACK Grade	
13	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		 life.augmented
1	260	3		
Bulk Solder Termination	Terminal Plating	Terminal Base Alloy	Comment	
Not Applicable	Tin (Sn), matte, annealed	Copper Alloy	,	

Package Designator	Package Size	Nbr of instances	Shape	
QFN	2 x 3	10	Flat	
Comment	B09K WFDFPN 2X3 10L COL; MDF is valid for STEF512SRXCPUR			

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 : California Prop65 list, dated 19th March 2021			
Query	Response		
1 - The product does not contain identified substance from California Prop 65 List, no exposure to consumers is foreseen	false		
2 - The product is containing below substance(s) from California Prop 65 List, no exposure to consumers is foreseen	true		
Substance	amount in product (mg)	Application	ppm in product
Nickel	0.025	die	1953
Lead	0.000		0
Lead-Borate Glass	0.000		0
Lead Zirconate Titanate	0.000		0
Antimony trioxide	0.000		0
Bisphenol A	0.000		0

QueryList : Chinese RoHS, references : SJT 11364 – 2014 and GBT 26572 – 2014				
Query	Response			
1 - Product(s) requires marking for the presence of restricted substances and must be marked with an Environmental Protection Use Period under China's Measures for Administration of the control of pollution by Electronic Information Products	false			
2 - Product(s) is eligible for marking with the e code under China's Measures for Administration of the control of pollution by Electronic Information Products	false			
Hasardous substance				
Lead (Pb)	Cadmium (Cd)	Mercury (Hg)	Hexavalent Chromium (Cr VI)	PBB & PBDE
0	0	0	0	0

QueryList : REACH-8th July 2021				
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
2 - Product(s) does not contain REACH Substances Of Very High Concern in any Embedded article nor Homogeneous Material above the limits per the definition within REACH	true			
CategoryLevel_Name	CategoryLevel_Threshold	Amount in Embedded Article / Homogeneous Material (mg)	Application - Article / Homogeneous Material	ppm in Article / Homogeneous Material

QueryList : Responsible metals sourcing	
Query	Response
The component is containing at least one of the following metals : Cobalt , Gold , Tantalum , Tin , Tungsten.	true
The following metals are present in the component :	Tin, Tungsten,
This product is in the scope of the responsible metals sourcing, its compliance is covered by our company processes .	

QueryList : Korea Chemical Control Act_27 Dec 2017 update	
Query	Response
The Product does contain at least one of the substances listed in Chemical Control Act	false

China GB 33372-2020 Limit standard for volatile organic compounds content in adhesives - 4 March 2020 application date 1st December 2020	
Query	Response
The product contains adhesives identified under GB 33372	false

Stockholm Convention Persistent Organic Pollutants	
Query	Response
Product is compliant with Stockholm Convention Persistent Organic Pollutants Annex I	true

Material Composition Declaration : note : Substance present with less 0.001mg will not be declared in this document						Mfr Item Name	MQCZ*UBFNABS		12.8000		5000000.0	1000000.0
Homogeneous Material	Material Group	Mass	UoM	Level	Substance Category	Substance	CAS	Exempt	Mass	UoM	Concentration in homogeneous material (ppm)	Concentration in product (ppm)
Die	M-011 Other inorganic materials	2.121	mg	supplier	die	Silicon(Si)	7440-21-3		1.777	mg	837812	138828
				supplier	metallisation	Aluminium(Al)	7429-90-5		0.008	mg	3772	625
				supplier	metallisation	Copper(Cu)	7440-50-8		0.204	mg	96181	15938
				supplier	metallisation	Nickel(Ni)	7440-02-0		0.025	mg	11787	1953
				supplier	metallisation	Palladium(Pd)	7440-05-3		0.008	mg	3772	625
				supplier	metallisation	Silver(Ag)	7440-22-4		0.001	mg	471	78
				supplier	metallisation	Tin(Sn)	7440-31-5		0.041	mg	19331	3203
				supplier	metallisation	Titanium(Ti)	7440-32-6		0.001	mg	471	78
				supplier	metallisation	Tungsten(W)	7440-33-7		0.012	mg	5658	938
				supplier	passivation	Silicon oxide	7631-86-9		0.044	mg	20745	3438
Leadframe	M-004 Copper and its alloys	2.750	mg	supplier	alloy	Copper (Cu)	7440-50-8		2.6868	mg	977000	209902
				supplier	alloy	Iron (Fe)	7439-89-6		0.0578	mg	21000	4512
				supplier	alloy	Phosphorus (P)	7723-14-0		0.0028	mg	1000	215
				supplier	alloy	Zinc (Zn)	7440-66-6		0.0028	mg	1000	215
Underfill	M-015 Other organic materials	0.390	mg	supplier	resin	Polyglycol ether	9038-95-3		0.332	mg	850000	25898
				supplier	resin	Other	Proprietary		0.059	mg	150000	4570
Encapsulation	M-015 Other organic materials	7.538	mg	supplier	mold compound	Epoxy resin	Proprietary		0.072	mg	9538	5617
				supplier	mold compound	Phenol resin	Proprietary		0.072	mg	9538	5617
				supplier	mold compound	Silica (Amorphous) A	60676-86-0		6.398	mg	848710	499811
				supplier	mold compound	Silica (Amorphous) B	7631-86-9		0.979	mg	129829	76457
				supplier	mold compound	Carbon Black	1333-86-4		0.018	mg	2385	1404
Connections coating	Solder	0.001	mg	supplier	solder alloy	Tin (Sn)	7440-31-5		0.001	mg	1000000	78