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 ***	2021-01-13
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 *	marianna grasso	**Representative Title**	ADG MD 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		

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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 marianna grasso
Date: 2021.01.13 16:59:07 +01:00

Product

Mfr Item Number	Mfr Item Name	Version	Mfr Site	Date
STGIPQ4C60T-HL	IN2U*RI61R8F	A	998G	2021-01-13
	Amount	**UoM**	**Unit type**	**ST ECOPACK Grade**
	4595	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	
Not Applicable	Not Applicable	3	
Bulk Solder Termination	**Terminal Plating**	**Terminal Base Alloy**	**Comment**
Not Applicable	Tin (Sn), matte, annealed	Copper Alloy	DM00746185

Package Designator	Size	Nbr of instances	Shape	
DIP	32.15,12.45,4.00	26	Through-hole	
Comment	N2DIP-26L			

QueryList : RoHS Directive 2011/65/EU-July 2011 Annex II amended by Directive 2015/863-March 2015

Query	Response
1 - Product(s) meets EU RoHS requirement without any exemptions	FALSE
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)	**TRUE**
4 - Product(s) does not meet EU RoHS requirements and is not under exemptions	FALSE

Exemption Id.	Description
7a	Lead in high melting temperature type solders (i.e. lead- based alloys containing 85 % by weight or more lead)

QueryList : ELV directive : 2000/53/EC amended 2020/363_ March 2020

Query	Response
1 - Product(s) meets EU ELV requirements without any exemptions	FALSE
2 - Product(s) meets EU RoHS requirements by application of the selected exemption(s)	**TRUE**

Exemption Id.	Description
8e	Lead in high melting temperature type solders (i.e. lead-based alloys containing 85 % by weight or more lead)

QueryList : California Prop65 list, dated 3rd January 2020

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	0.04	die - leadframe	8
Lead	6.17	soft solder	1342

QueryList : REACH-25th June 2020

Query	Response
1 - Product(s) does not contain REACH Substances Of Very High Concern above the limits per the definition within REACH	**FALSE**

CategoryLevel_Name	CategoryLevel_Threshold	amount in product (mg)	Application	ppm in product
Lead	1000 ppm	6.17	soft solder	1342

Query	Response
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	**FALSE**

CategoryLevel_Name	CategoryLevel_Threshold	Amount in Embedded Article / Homogeneous Material (mg)	Application - Article / Homogeneous Material	ppm in Article /Homogeneous Material
Lead	1000 ppm	6.17	soft solder	900015

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 is the component :	Gold, Tin,
This product is in the scope of the responsible metals sourcing, its compliance is covered by our company processes .	

Material Composition Declaration :
note : Substance present with less 0.001mg will not be declared in this document

						Mfr Item Name	IN2U*RI61R8F					
Homogeneous Material	**Material Group**	Mass	**UoM**	**Level**	**Substance Category**	**Substance**	**CAS**	**Exempt**	**Mass**	**UoM**	**Concentration in homogeneous material (ppm)**	**Concentration in product (ppm)**
Dies	M-011 Other inorganic materials	23.366	mg	supplier	die	Silicon(Si)	7440-21-3		22.409	mg	959043	4878
				supplier	metallisation	Aluminium(Al)	7429-90-5		0.375	mg	16049	82
				supplier	metallisation	Chromium(Cr)	7440-47-3		0.002	mg	85	0
				supplier	metallisation	Gold(Au)	7440-57-5		0.007	mg	300	2
				supplier	metallisation	Nickel(Ni)	7440-02-0		0.038	mg	1626	8
				supplier	metallisation	Silver(Ag)	7440-22-4		0.005	mg	214	1
				supplier	metallisation	Titanium(Ti)	7440-32-6		0.001	mg	43	0
				supplier	metallisation	Vanadium(V)	7440-62-2		0.001	mg	43	0
				supplier	Passivation	Silicon nitride(SiN)	12033-89-5		0.135	mg	5778	29
				supplier	passivation	Silicon oxide	7631-86-9		0.257	mg	10999	56
				supplier	polymer coating	Durimide	proprietary		0.136	mg	5820	30
Leadframe	M-004 Copper and its alloys	2791.233	mg	supplier	alloy & coating	Copper(Cu)	7440-50-8		2710.287	mg	971000	589834
				supplier	alloy & coating	Iron(Fe)	7439-89-6		58.616	mg	21000	12756
				supplier	alloy & coating	Phosphorus metal	7723-14-0		5.582	mg	2000	1215
				supplier	alloy & coating	Silver (Ag)	7440-22-4		16.748	mg	6000	3645
Controller temp NTC	Other Inorganic Material	0.283	mg	supplier	Silicon die	Silicon	7440-21-3		0.277	mg	1000000	60
Die Attach 1	Other Organic Material	2.020	mg	supplier	Glue	Silver(Ag)	7440-22-4		1.580	mg	797980	344
				supplier	Glue	High boiling methacrylate	NA		0.198	mg	100000	43
				supplier	Glue	Polybutadiene diacrylate	NA		0.099	mg	50000	22
				supplier	Glue	Silica, amorphous, treated	68909-20-6		0.099	mg	50000	22
				supplier	Glue	Epoxy resin	NA		0.002	mg	1010	0
				supplier	Glue	Substituted silane	NA		0.002	mg	1010	0
Die Attach 2	Other Inorganic Material	35.800	mg	supplier	Glue	Isobornyl acrylate	5888-33-5		17.197	mg	490013	3743
				supplier	Glue	N,N-Dimethylacrylamide	2680-03-7		6.668	mg	189999	1451
				supplier	Glue	Ethanone, 2,2-dimethoxy-1,2-diphenyl-	24650-42-8		0.842	mg	23992	183
				supplier	Glue	[3-(2,3-Epoxypropoxy)propyl]trimethoxysilane	2530-83-8		0.842	mg	23992	183
				supplier	Glue	diphenyl(2,4,6-trimethylbenzoyl)phosphine ox	75980-60-8		0.316	mg	9003	69
				supplier	Glue	Camphene	79-92-5		0.084	mg	2394	18
				supplier	Glue	1,7,7-Trimethyltricyclo[2.2.1.02,6]heptane	508-32-7		0.084	mg	2394	18
				supplier	Glue	others	NA		9.062	mg	258213	1972
Soft solder	Other Organic Material	6.989	mg	supplier	Soft Solder	Tin(Sn)	7440-31-5		0.685	mg	99985	149
				SVHC	Soft Solder	Lead	7439-92-1	7a-Lead in high melting temper	6.166	mg	900015	1342
Bonding wire	Other Inorganic Material	1.561	mg	supplier	Bonding wire	Gold(Au)	7440-57-5		1.530	mg	314297	333
	Other Inorganic Material	3.405	mg	supplier	Bonding wire	Gold(Au)	7440-57-5		3.338	mg	685703	726
Encapsulation	Other Organic Material	1745.176	mg	supplier	Molding compound	Crystalline Silica	14808-60-7		995.690	mg	582000	216690
				supplier	Molding compound	Fused Silica	60676-86-0		256.622	mg	150000	55848
				supplier	Molding compound	polyglycidyl ether ocresolformaldehyde novola	29690-82-2		171.081	mg	100000	37232
				supplier	Molding compound	Phenolic resin	9003-35-4		136.865	mg	80000	29786
				supplier	Molding compound	Aluminium Hydroxide	21645-51-2		136.865	mg	80000	29786
				supplier	Molding compound	Carbon black	1333-86-4		13.686	mg	8000	2978
Finishing	Other Inorganic Material	20.932	mg	supplier	Connection Coating	Tin(Sn)	7440-31-5		20.520	mg	1000000	4466