



Materials Declaration Form

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

Supplier Information			
Company Name *	STMicroelectronics	Response Date *	2018-07-27
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 *	Giovanni Giacopello	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		

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
STLD257N4F7AG	BZYZ*OS48Q8P	A	9950	2018-07-27
	Amount	UoM	Unit type	ST ECOPACK Grade
	105	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	Size	Nbr of instances	Shape	
QFN	5 - 5.95 - 0.8	8	flat	
Comment	PFLAT 5x6 MIXPLANT DSC NEW BOM			

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 2017/2096 _November 2017	
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 25th May 2018			
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	0.10	Die	952
Lead	2.58	Soft solder	24610

QueryList : REACH-15th January 2018				
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	2.58	soft solder	24610
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	2.03	soft solder	2033000

Material Composition Declaration : note : Substance present with less 0.001mg will not be declared in this document						Mfr Item Name	BZY2*0548Q8P					
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	3.958	mg	supplier	die	Silicon (Si)	7440-21-3		3.547	mg	896160	33781
				supplier	metallization	Aluminium (Al)	7429-90-5		0.164	mg	41435	1561
				supplier	passivation	Nickel (Ni)	7440-02-0		0.041	mg	10359	390
				supplier	metallization	Silver (Ag)	7440-22-4		0.024	mg	6064	229
				supplier	metallization	Titanium (Ti)	7440-32-6		0.018	mg	4546	171
				supplier	metallization	Tungsten (W)	7440-33-7		0.041	mg	10359	390
				supplier	Passivation	Silicon Oxide	7631-86-9		0.040	mg	10106	381
				supplier	back side metallization	Titanium (Ti)	7440-32-6		0.005	mg	1263	48
				supplier	back side metallization	Gold (Au)	7440-57-5		0.015	mg	3790	143
				supplier	back side metallization	Nickel (Ni)	7440-02-0		0.059	mg	14907	562
				supplier	back side metallization	Vanadium (V)	7440-62-2		0.004	mg	1011	38
Leadframe	M-004 Copper and its alloys	42.478	mg	supplier	alloy	Copper (Cu)	7440-50-8		40.254	mg	947643	383371
				supplier	alloy	Iron (Fe)	7439-89-6		0.946	mg	22270	9010
				supplier	alloy	Iron Phosphide (FeP)	26508-33-8		0.057	mg	1343	543
				supplier	alloy	Zinc (Zn)	7440-66-6		0.050	mg	1177	476
				supplier	metallization	Silver (Ag)	7440-22-4		1.171	mg	27567	11152
Soft solder	Solder	2.794	mg	JIG - R	solder	Lead (Pb)	7439-92-1	7a-Lead in high me	2.584	mg	924839	24610
				supplier	solder	Tin (Sn)	7440-31-5		0.070	mg	25054	667
Bonding wires	M-008 Precious metals	0.154	mg	supplier	solder	Silver (Ag)	7440-22-4		0.140	mg	50107	1333
				supplier	wire	Gold (Au)	7440-57-5		0.154	mg	1000000	1467
Clip	M-004 Copper and its alloys	15.605	mg	supplier	clip	Copper (Cu)	7440-50-8		15.605	mg	1000000	148619
Encapsulation	M-011 Other inorganic materials	39.912	mg	supplier	mold compound	Silica, vitreous	60676-86-0		31.333	mg	785052	298410
				supplier	mold compound	epoxy resin	Proprietary		5.188	mg	129986	49410
				supplier	mold compound	phenol resin	9003-35-4		2.394	mg	59982	22800
				supplier	mold compound	metal hydroxide	Proprietary		0.798	mg	19994	7600
				supplier	mold compound	Carbon black	1333-86-4		0.199	mg	4986	1895
connections coating	Solder	0.099	mg	supplier	solder alloy	Tin (Sn)	7440-31-5		0.099	mg	1000000	943