



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 *	2019-05-27
Company Unique ID	NL 008751171801		
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 *	Rossana Bonaccorso	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
STL50DN6F7	82ES*OD62R52	A	3068	2019-05-27
	Amount	UoM	Unit type	ST ECOPACK Grade
	95.00	mg	Each	ECOPACK2
	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	
NA	Tin (Sn), matte	Copper Alloy		

Package Designator	Size	Nbr of instances	Shape	
QFN	6-5-1	12	pin	
Comment	PowerFLAT 5x6 double island			

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 8th March 2019			
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	0.02	Die	200
Lead	1.69	Soft solder	17758

QueryList : REACH-15th January 2019				
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	1.69	Soft solder	17758
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	1.69	Soft solder	974514

Material Composition Declaration : note : Substance present with less 0.001mg will not be declared in this document						Mfr Item Name	82E5*OD62R52									
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	0.563	mg	supplier	die	Silicon (Si)	7440-21-3		0.476	mg	845471	5011				
				supplier	metallization	Aluminium (Al)	7429-90-5		0.032	mg	56838	337				
				supplier	metallization	Nickel (Ni)	7440-02-0		0.008	mg	14210	84				
				supplier	metallization	Silver (Ag)	7440-22-4		0.005	mg	8881	53				
				supplier	metallization	Titanium (Ti)	7440-32-6		0.004	mg	7105	42				
				supplier	metallization	Tungsten (W)	7440-33-7		0.008	mg	14210	84				
				supplier	Passivation	Silicon Nitride	12033-89-5		0.004	mg	7105	42				
				supplier	Passivation	Silicon Oxide	7631-86-9		0.008	mg	14209	81				
				supplier	back side metallization	Titanium (Ti)	7440-32-6		0.001	mg	1776	11				
				supplier	back side metallization	Nickel (Ni)	7440-02-0		0.011	mg	19538	116				
				supplier	back side metallization	Vanadium (V)	7440-62-2		0.001	mg	1776	11				
				supplier	back side metallization	Silver (Ag)	7440-22-4		0.005	mg	8881	53				
				Leadframe	M-004 Copper and its alloys	42.768	mg	supplier	alloy	Copper (Cu)	7440-50-8		41.678	mg	974514	438716
								supplier	alloy	Iron (Fe)	7439-89-6		0.980	mg	22914	10316
								supplier	alloy	Iron Phosphide (FeP)	26508-33-8		0.059	mg	1380	621
supplier	alloy	Zinc (Zn)	7440-66-6						0.051	mg	1192	537				
Soft solder	Solder	1.766	mg	JIG - R	solder	Lead (Pb)	7439-92-1	7a-Lead in high mel	1.687	mg	955266	17758				
				supplier	solder	Silver (Ag)	7440-22-4		0.044	mg	24915	463				
				supplier	solder	Tin (Sn)	7440-31-5		0.035	mg	19819	368				
Bonding wires	M-004 Copper and its alloys	0.043	mg	supplier	wire	Copper (Cu)	7440-50-8		0.043	mg	1000000	453				
Bonding Ribbons	M-009 Other non-ferrous metals and	0.502	mg	supplier	Ribbon	Aluminium (Al)	7429-90-5		0.502	mg	1000000	5284				
Encapsulation	M-011 Other inorganic materials	49.199	mg	supplier	mold compound	Silica, vitreous	60676-86-0		45.558	mg	925994	479558				
				supplier	mold compound	epoxy resin	85954-11-6		1.968	mg	40001	20716				
				supplier	mold compound	phenol resin	26834-02-6		1.476	mg	30001	15537				
				supplier	mold compound	carbon black	1333-86-4		0.197	mg	4004	2074				
Connections coating	Solder	0.159	mg	supplier	solder alloy	Tin (Sn)	7440-31-5		0.159	mg	1000000	1674				