



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 *	2019-06-03
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
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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
STGD6M65DF2	XDDP*KLFCR52	A	3068	2019-06-03
Amount	UoM	Unit type	ST ECOPACK Grade	
330.00	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		
NA	Tin (Sn), matte	Copper Alloy		

Package Designator	Size	Nbr of instances	Shape
SIP	6.5-6.1-2.3	3	GULL WING
Comment	TO 252 DPAK		

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	0.12	Die - Leadframe	352
Lead	2.79	Soft solder	8448
Cobalt	0.46	Leadframe	1400

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	2.79	Soft solder	8448
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	2.79	Soft solder	955122

Material Composition Declaration : note : Substance present with less 0.001mg will not be declared in this document						Mfr Item Name	XDDP*KLFCRS2					
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	1.675	mg	supplier	die	Silicon (Si)	7440-21-3		1.512	mg	902794	4582
				supplier	metallization	Aluminium (Al)	7429-90-5		0.071	mg	42393	215
				supplier	Passivation	Silicon Nitride	12033-89-5		0.015	mg	8956	45
				supplier	Passivation	Silicon Oxide	7631-86-9		0.025	mg	14928	76
				supplier	back side metallization	Aluminium (Al)	7429-90-5		0.008	mg	4777	24
				supplier	back side metallization	Titanium (Ti)	7440-32-6		0.002	mg	1194	6
				supplier	back side metallization	Gold (Au)	7440-57-5		0.001	mg	597	3
				supplier	back side metallization	Nickel (Ni)	7440-02-0		0.024	mg	14330	73
				supplier	back side metallization	Vanadium (V)	7440-62-2		0.001	mg	597	3
				supplier	back side metallization	Silver (Ag)	7440-22-4		0.006	mg	3583	18
				supplier	polymer die coating	Propimide	Proprietary		0.010	mg	5851	30
				Leadframe	M-004 Copper and its alloys	165.043	mg	supplier	alloy	Copper (Cu)	7440-50-8	
supplier	alloy	CopperPhosphorous (CuP)	12517-41-8						0.330	mg	1999	1000
supplier	alloy	Cobalt (Co)	7440-48-4						0.462	mg	2799	1400
supplier	metallization	Nickel (Ni)	7440-02-0						0.092	mg	557	279
supplier	metallization	Phosphorus (P)	7723-14-0						0.007	mg	44	21
Soft solder	Solder	2.919	mg	JIG - R	solder	Lead (Pb)	7439-92-1	7a-Lead in high met	2.788	mg	955122	8448
				supplier	solder	Silver (Ag)	7440-22-4		0.073	mg	25009	221
				supplier	solder	Tin (Sn)	7440-31-5		0.058	mg	19869	176
Bonding wires	M-011 Other inorganic materials	0.359	mg	supplier	wire	Aluminium (Al)	7429-90-5		0.358	mg	997214	1085
				supplier	wire	Magnesium (Mg)	7439-95-4		0.001	mg	2786	3
				supplier	mold compound	Silica, vitreous	60676-86-0		139.089	mg	874999	421482
Encapsulation	M-011 Other inorganic materials	158.959	mg	supplier	mold compound	Tetramethyl-biphenyl-diyl-bis oxymethylene-b	85954-11-6		6.358	mg	39998	19267
				supplier	mold compound	Epoxy Resin	25068-38-6		4.769	mg	30001	14452
				supplier	mold compound	phenol resin	29690-82-2		7.948	mg	50000	24085
				supplier	mold compound	Carbon black	1333-86-4		0.795	mg	5002	2409
Connections coating	Solder	1.045	mg	supplier	solder alloy	Tin (Sn)	7440-31-5		1.045	mg	1000000	3167