



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 *	2018-09-21
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 *	Giovanni Giacobello	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	<p>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.</p>

Product				
Mfr Item Number	Mfr Item Name	Version	Mfr Site	Date
STD8N60DM2	TQDP*FQ6TB5V	A	994X	2018-09-21
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		
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	
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 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	0.03	Die	100
Lead	4.39	Soft solder	13294

QueryList : REACH-27th June 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	4.39	Soft solder	13294
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	4.39	Soft solder	954941

Material Composition Declaration : note : Substance present with less 0.001mg will not be declared in this document						Mfr Item Name	TQDP*FQ6T85V					
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	3.699	mg	supplier	die	Silicon (Si)	7440-21-3		3.498	mg	945676	10603
				supplier	metallization	Aluminium (Al)	7429-90-5		0.097	mg	26216	294
				supplier	Passivation	Silicon Nitride	12033-89-5		0.023	mg	6216	70
				supplier	Passivation	Silicon Oxide	7631-86-9		0.034	mg	9189	103
				supplier	back side metallization	Titanium (Ti)	7440-32-6		0.002	mg	541	6
				supplier	back side metallization	Nickel (Ni)	7440-02-0		0.033	mg	8919	100
				supplier	back side metallization	Silver (Ag)	7440-22-4		0.012	mg	3243	36
Leadframe	M-004 Copper and its alloys	164.944	mg	supplier	alloy	Copper (Cu)	7440-50-8		164.729	mg	998697	499179
				supplier	alloy	Iron (Fe)	7439-89-6		0.165	mg	1000	500
				supplier	alloy	Iron Phosphide (FeP)	26508-33-8		0.050	mg	303	152
				supplier	alloy	Lead (Pb)	7439-92-1	7a-Lead in high met	4.387	mg	954941	13294
Soft solder	Solder	4.594	mg	JIG - R	solder	Silver (Ag)	7440-22-4		0.115	mg	25033	344
				supplier	solder	Tin (Sn)	7440-31-5		0.092	mg	20026	279
				supplier	wire	Aluminium (Al)	7429-90-5		0.923	mg	1000000	2797
Bonding wires	M-011 Other inorganic materials	0.923	mg	supplier	mold compound	Fused Silica	60676-86-0		132.349	mg	854995	401058
				supplier	mold compound	Phenol resin Novolak	26834-02-6		7.740	mg	50002	23455
				supplier	mold compound	Biphenyl epoxy resin	85954-11-6		7.740	mg	50002	23455
				supplier	mold compound	Poly Phenyl Glycidyl Ether co-Dicyclopentadiene	119345-05-0		5.418	mg	35001	16418
				supplier	mold compound	Benzaldehyde hydroxy polymer	106466-55-1		0.774	mg	5000	2345
Connections coating	Solder	1.045	mg	supplier	mold compound	Carbon black	1333-86-4		0.774	mg	5000	2345
				supplier	solder alloy	Tin (Sn)	7440-31-5		1.045	mg	1000000	3167