



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 *	2019-05-17
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
L99MOD53XPTR	GSEH*UH73AA6	A	0959	2019-05-17
Amount	UoM	Unit type	ST ECOPACK Grade	
1925.00	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	
3	260	3		
bulk Solder Termination	Terminal Plating	Terminal Base Alloy	Comment	
NA	Tin (Sn), matte	Copper Alloy		

Package Designator	Size	Nbr of instances	Shape	
QFP	10.3-7.5-2.28	36	Gull Wing	
Comment	PowerSSO36			

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 23rd November 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	52
Lead	13.72	Soft solder	7125

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	13.72	Soft solder	7125
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	13.716	Soft solder	974979

Material Composition Declaration : note : Substance present with less 0.001mg will not be declared in this document						Mfr Item Name	GSEH*UH73AA6					
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	20.639	mg	supplier	die	Silicon (Si)	7440-21-3		19.746	mg	956732	10258
				supplier	metallization	Aluminium (Al)	7429-90-5		0.168	mg	8140	87
				supplier	metallization	Titanium (Ti)	7440-32-6		0.019	mg	921	10
				supplier	Passivation	Silicon Nitride	12033-89-5		0.033	mg	1599	17
				supplier	Passivation	Silicon Oxide	7631-86-9		0.365	mg	17685	190
				supplier	back side metallization	Chromium (Cr)	7440-47-3		0.011	mg	533	6
				supplier	back side metallization	Gold (Au)	7440-57-5		0.030	mg	1453	16
				supplier	back side metallization	Nickel (Ni)	7440-02-0		0.101	mg	4894	52
				supplier	glass coating	Glass: Silicon Dioxide	7631-86-9		0.013	mg	630	7
				#N/A	polymer die coating	PDI Gamma-butyrolactone	96-48-0		0.153	mg	7413	79
				supplier	alloy	Copper (Cu)	7440-50-8		155.396	mg	974502	80725
				supplier	alloy	Iron (Fe)	7439-89-6		3.655	mg	22920	1899
Leadframe	M-004 Copper and its alloys	159.462	mg	supplier	alloy	Iron Phosphide (FeP)	26508-33-8		0.220	mg	1380	114
				supplier	alloy	Zinc (Zn)	7440-66-6		0.191	mg	1198	99
				supplier	solder	Lead (Pb)	7439-92-1	7a-Lead in high mel	13.716	mg	974979	7123
				supplier	solder	Silver (Ag)	7440-22-4		0.211	mg	14999	110
Soft solder	Solder	14.068	mg	supplier	solder	Tin (Sn)	7440-31-5		0.141	mg	10022	73
				supplier	wire	Gold (Au)	7440-57-5		1.626	mg	759458	845
				supplier	wire	Copper (Cu)	7440-50-8		0.508	mg	237272	264
				supplier	wire	Palladium (Pd)	7440-05-3		0.005	mg	2335	3
				supplier	wire	Platinum (Pt)	7440-06-4		0.002	mg	935	1
Encapsulation	M-011 Other inorganic materials	1724.438	mg	supplier	mold compound	silica vitreous	60676-86-0		1514.056	mg	878000	786523
				supplier	mold compound	Biphenyl epoxy resin	85954-11-6		103.466	mg	60000	53749
				supplier	mold compound	Phenol Resin	205830-20-2		68.978	mg	40000	35833
				supplier	mold compound	epoxy resin	25068-38-6		34.489	mg	20000	17916
				supplier	mold compound	carbon black	1333-86-4		3.449	mg	2000	1792
				supplier	solder alloy	Tin (Sn)	7440-31-5		4.252	mg	1000000	2209
connections coating	Solder	4.252	mg	supplier	solder alloy	Tin (Sn)	7440-31-5		4.252	mg	1000000	2209