



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
STPS640CB-TR	HWDP*Z34S12Y	A	994X	2019-05-27
Amount	UoM	Unit type	ST ECOPACK Grade	
320.00	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	0.03	Die	78
Lead	2.09	Soft solder	6534
Cobalt	0.47	Leadframe	1456

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	2.09	Soft solder	6534
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	2.09	Soft solder	954795

Material Composition Declaration : note : Substance present with less 0.001mg will not be declared in this document						Mfr Item Name	HWDP*234512Y					
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	2.299	mg	supplier	die	Silicon (Si)	7440-21-3		2.139	mg	930435	6688
				supplier	metallization	Aluminium (Al)	7429-90-5		0.089	mg	38696	278
				supplier	metallization	Nickel (Ni)	7440-02-0		0.010	mg	4348	31
				supplier	metallization	Titanium (Ti)	7440-32-6		0.002	mg	870	6
				supplier	metallization	Tungsten (W)	7440-33-7		0.003	mg	1304	9
				supplier	Passivation	Silicon Oxide	7631-86-9		0.013	mg	5652	41
				supplier	back side metallization	Titanium (Ti)	7440-32-6		0.001	mg	435	3
				supplier	back side metallization	Gold (Au)	7440-57-5		0.003	mg	1304	9
				supplier	back side metallization	Nickel (Ni)	7440-02-0		0.015	mg	6522	47
				supplier	polymer die coating	Durimide	Proprietary		0.024	mg	10434	72
Leadframe	M-004 Copper and its alloys	166.245	mg	supplier	alloy	Copper (Cu)	7440-50-8		165.446	mg	995194	517019
				supplier	alloy	CopperPhosphorous (CuP)	12517-41-8		0.333	mg	2003	1041
				supplier	alloy	Cobalt (Co)	7440-48-4		0.466	mg	2803	1456
				supplier	alloy	Lead (Pb)	7439-92-1	7a-Lead in high mel	2.091	mg	954795	6534
Soft solder	Solder	2.190	mg	supplier	solder	Silver (Ag)	7440-22-4		0.055	mg	25114	172
				supplier	solder	Tin (Sn)	7440-31-5		0.044	mg	20091	138
				supplier	wire	Aluminium (Al)	7429-90-5		0.194	mg	1000000	606
Bonding wires	M-011 Other inorganic materials	0.194	MG	supplier	wire	Aluminium (Al)	7429-90-5		0.194	mg	1000000	606
				supplier	mold compound	Silica, vitreous	60676-86-0		132.854	mg	897498	415169
				supplier	mold compound	Epoxy resin	25068-38-6		10.362	mg	70001	32381
				supplier	mold compound	Phenol resin	29690-82-2		4.441	mg	30001	13878
Encapsulation	M-011 Other inorganic materials	148.027	mg	supplier	mold compound	carbon black	1333-86-4		0.370	mg	2500	1156
				supplier	mold compound	Tin (Sn)	7440-31-5		1.045	mg	1000000	3266
Connections coating	Solder	1.045	mg	supplier	solder alloy	Tin (Sn)	7440-31-5		1.045	mg	1000000	3266