



Materials Declaration Form

IPC	1752	Version	2
Form Type *	Distribute		
Sectionals *	Material Info Manufacturing Info	Subsectionals *	A-D

*: Required Field

Supplier Information			
Company Name *	STMicroelectronics	Response Date *	2018-06-04
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
STPS745FP	HTUV*Z22S01Y	A	3068	2018-06-04
	Amount	UoM	Unit type	ST ECOPACK Grade
	1900.00	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
NA	NA	NA		
bulk Solder Termination	Terminal Plating	Terminal Base Alloy	Comment	
NA	Tin (Sn), matte	Copper Alloy		

Package Designator	Size	Nbr of instances	Shape	
SIP	10-9.05-4.4	3	Through-hole	
Comment	TO 220 ISOL FULL PACK 0.5 AC-2L			

QueryList : RoHS Directive 2011/65/EU-July 2011 – Annex II amended by Directive 2015/863-April 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 : 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	0.45	Die - Leadframe	235
Lead	2.30	Soft solder	1208

QueryList : REACH-15th January 2018				
Query				Response
1 - Product(s) does not contain REACH Substances Of Very High Concern above the limits per the definition within REACH				true
CategoryLevel_Name	CategoryLevel_Threshold	amount in product (mg)	Application	ppm in product
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				true
CategoryLevel_Name	CategoryLevel_Threshold	Amount in Embedded Article / Homogeneous Material (mg)	Application - Article / Homogeneous Material	ppm in Article /Homogeneous Material

Material Composition Declaration : note : Substance present with less 0.001mg will not be declared in this document						Mfr Item Name	HTUV*Z22S01Y					
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	2.476	mg	supplier	die	Silicon (Si)	7440-21-3		2.330	mg	941034	1226
				supplier	metallization	Aluminium (Al)	7429-90-5		0.096	mg	38772	51
				supplier	metallization	Nickel (Ni)	7440-02-0		0.011	mg	4443	6
				supplier	metallization	Titanium (Ti)	7440-32-6		0.002	mg	807	1
				supplier	metallization	Tungsten (W)	7440-33-7		0.003	mg	1212	2
				supplier	Passivation	Silicon Oxide	7631-86-9		0.014	mg	5654	7
				supplier	back side metallization	Titanium (Ti)	7440-32-6		0.001	mg	404	1
				supplier	back side metallization	Gold (Au)	7440-57-5		0.003	mg	1212	2
				supplier	back side metallization	Nickel (Ni)	7440-02-0		0.016	mg	6462	8
				Leadframe	M-004 Copper and its alloys	647.270	mg	supplier	alloy	Copper (Cu)	7440-50-8	
supplier	alloy	Iron (Fe)	7439-89-6						0.647	mg	1000	341
supplier	alloy	Iron Phosphide (FeP)	26508-33-8						0.194	mg	300	101
supplier	metallization	Nickel (Ni)	7440-02-0						0.420	mg	649	221
supplier	metallization	Phosphorus (P)	7723-14-0						0.034	mg	52	18
Soft solder	Solder	2.403	mg	JIG - R	solder	Lead (Pb)	7439-92-1	7a-Lead in high met	2.295	mg	955056	1208
				supplier	solder	Silver (Ag)	7440-22-4		0.060	mg	24969	32
				supplier	solder	Tin (Sn)	7440-31-5		0.048	mg	19975	25
Bonding wires	M-011 Other inorganic materials	0.698	mg	supplier	wire	Aluminium (Al)	7429-90-5		0.698	mg	1000000	367
				supplier	wire	Aluminium (Al)	7429-90-5		0.698	mg	1000000	367
Encapsulation	M-011 Other inorganic materials	1240.791	mg	supplier	mold compound	Quartz	14808-60-7		868.554	mg	700000	457134
				supplier	mold compound	Silica, vitreous	6076-86-0		93.059	mg	75000	48978
				supplier	mold compound	Epoxy resin	25068-38-6		173.711	mg	140000	91427
				supplier	mold compound	phenol resin	29690-82-2		86.855	mg	70000	45713
				supplier	mold compound	metal hydroxide	21645-51-2		12.408	mg	10000	6531
Connections coating	Solder	6.362	mg	supplier	mold compound	carbon black	1333-86-4		6.204	mg	5000	3265
				supplier	solder alloy	Tin (Sn)	7440-31-5		6.362	mg	1000000	3348