



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 *	2018-02-07
Contact Name *	Refer to Supplier Comment section	Contact Email *	Refer to Supplier Comment section
Contact Phone *	Refer to Supplier Comment section	Authorized Representative *	Rossana Bonaccorso
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 *	Legal Declaration *
true	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
STPS1545G-TR	HWD2*Z20S01Y	A	994X	2018-02-07
	Amount	UoM	Unit type	ST ECOPACK Grade
	1380.00	mg	Each	ECOPACK2

Manufacturing information				
J-STD-020 MSL Rating	Classification Temp	Nbr of Reflow Cycles		 life.augmented
1	245	3		
bulk Solder Termination	Terminal Plating	Terminal Base Alloy	Comment	
NA	Tin (Sn), matte	Copper Alloy		

Package Designator	Size	Nbr of instances	Shape
SIP	10.2-9.15-4.5	2	gull wing
Comment	D2PAK		

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 15th December 2017			
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	0.99	Die/ Leadframe	720
Lead	4.65	Soft solder	3372

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	HWD2*220501Y					
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	5.400	mg	supplier	die	Silicon (Si)	7440-21-3		5.078	mg	940370	3680
				supplier	metallization	Aluminium (Al)	7429-90-5		0.210	mg	38889	152
				supplier	metallization	Nickel (Ni)	7440-02-0		0.023	mg	4259	17
				supplier	metallization	Titanium (Ti)	7440-32-6		0.005	mg	927	4
				supplier	metallization	Tungsten (W)	7440-33-7		0.008	mg	1481	6
				supplier	Passivation	Silicon Oxide	7631-86-9		0.031	mg	5741	22
				supplier	back side metallization	Titanium (Ti)	7440-32-6		0.003	mg	556	2
				supplier	back side metallization	Gold (Au)	7440-57-5		0.007	mg	1296	5
				supplier	back side metallization	Nickel (Ni)	7440-02-0		0.035	mg	6481	25
				Leadframe	M-004 Copper and its alloys	779.485	mg	supplier	alloy	Copper (Cu)	7440-50-8	
supplier	alloy	Iron (Fe)	7439-89-6						0.779	mg	999	564
supplier	alloy	Iron Phosphide (FeP)	26508-33-8						0.234	mg	300	170
supplier	metallization	Nickel (Ni)	7440-02-0						0.935	mg	1200	678
Soft solder	Solder	4.874	mg	JIG - R	solder	Lead (Pb)	7439-92-1	7a-Lead in high mel	4.654	mg	954863	3372
				supplier	solder	Silver (Ag)	7440-22-4		0.122	mg	25031	88
				supplier	solder	Tin (Sn)	7440-31-5		0.098	mg	20106	71
Bonding wires	M-011 Other inorganic materials	2.572	mg	supplier	wire	Aluminium (Al)	7429-90-5		2.572	mg	1000000	1864
				supplier	mol	Carbon black	1333-86-4		1.463	mg	2500	1060
Encapsulation	M-011 Other inorganic materials	585.180	mg	supplier	mold compound	Silica, vitreous	60676-86-0		525.199	mg	897500	380579
				supplier	mold compound	Epoxy resin	25068-38-6		40.963	mg	70001	29683
				supplier	mold compound	Phenol resin	29690-82-2		17.555	mg	29999	12721
				supplier	mold compound	Carbon black	1333-86-4		1.463	mg	2500	1060
Connections coating	Solder	2.489	mg	supplier	solder alloy	Tin (Sn)	7440-31-5		2.489	mg	1000000	1804