



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 *	2020-03-16
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 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
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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
STPS2150	HNRH*Z68P81R	A	9941	2020-03-16
	Amount	UoM	Unit type	ST ECOPACK Grade
	400	mg	Each	ECOPACK® 2
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
Not Applicable	Not Applicable	3		
Bulk Solder Termination	Terminal Plating	Terminal Base Alloy	Comment	
Not Applicable	Tin (Sn), matte, annealed	Copper Alloy	CD00243298	

Package Designator	Size	Nbr of instances	Shape	
RAD	6.5-10.17-3.24	2	Through hole	
Comment	DO 15			

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 3rd January 2020			
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	0.01	die	33
Lead	1.44	soft solder	3608

QueryList : REACH-16th January 2020				
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	1.44	Soft solder	3608
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	1.443	Soft solder	925000

Material Composition Declaration :						Mfr Item Name	HNRH*Z68P81R					
note : Substance present with less 0.001mg will not be declared in this document												
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	1.231	mg	supplier	die	Silicon(Si)	7440-21-3		1.171	mg	951259	2928
				supplier	metallisation	Aluminium(Al)	7429-90-5		0.007	mg	5686	18
				supplier	metallisation	Gold(Au)	7440-57-5		0.007	mg	5686	18
				supplier	metallisation	Nickel(Ni)	7440-02-0		0.013	mg	10561	33
				supplier	metallisation	Titanium(Ti)	7440-32-6		0.002	mg	1625	5
				supplier	metallisation	Tungsten(W)	7440-33-7		0.002	mg	1625	5
				supplier	passivation	Silicon oxide	7631-86-9		0.007	mg	5686	18
				supplier	polymer coating	Durimide	proprietary		0.022	mg	17872	55
Leadframe	M-004 Copper and its alloys	286.216	mg	supplier	alloy & coating	Copper(Cu)	7440-50-8		278.917	mg	974498	697293
				supplier	alloy & coating	Iron(Fe)	7439-89-6		6.560	mg	22920	16400
				supplier	alloy & coating	Iron Phosphide(FeP)	26508-33-8		0.395	mg	1380	988
				supplier	alloy & coating	Zinc(Zn)	7440-66-6		0.344	mg	1202	860
Soft solder	Solder	1.560	mg	SVHC	solder	Lead (Pb)	7439-92-1	7a-Lead in high melting tempe	1.443	mg	925000	3608
				supplier	solder	Tin (Sn)	7440-31-5		0.039	mg	25000	98
				supplier	solder	Silver (Ag)	7440-22-4		0.078	mg	50000	195
Encapsulation	M-011 Other inorganic materials	104.317	mg	supplier	mold compound	Quartz	14808-60-7		81.366	mg	779988	203410
				supplier	mold compound	epoxy resin	29690-82-2		15.126	mg	145000	37815
				supplier	mold compound	phenol resin	9003-35-4		7.303	mg	70008	18258
				supplier	mold compound	Carbon Black	1333-86-4		0.522	mg	5004	1305
connections coating	Solder	6.676	mg	supplier	solder alloy	Tin (Sn)	7440-31-5		6.676	mg	1000000	16690