



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 *	2019-03-20
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


While STMicroelectronics has endeavored to provide information which is accurate and up to date, this document and its contents are provided on a strict 'as is' and 'as available' basis. STMicroelectronics disclaims all warranties, express or implied related to this document and its contents, including but not limited to implied warranties of completeness, truth, accuracy, merchantability, fitness for a particular purpose and non-infringement. ST shall have no responsibility and assumes no liability for any cost, loss or damage of any kind which could arise, directly or indirectly, from the use or inability to use this document and/or its contents.

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
STPS3150RL	HNBH*Z70P81R	A	ZA41	2019-03-20
	Amount	UoM	Unit type	ST ECOPACK Grade
	1120	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	Not Applicable		
Bulk Solder Termination	Terminal Plating	Terminal Base Alloy	Comment	
Not Applicable	Tin (Sn), matte	Copper Alloy		

Package Designator	Size	Nbr of instances	Shape	
AXL	9X16X5.2	2	Through-hole	
Comment	DO201AD			

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 26th October 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	0.02	Die	16
Lead	4.63	Soft solder	4138

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	4.63	Soft solder	4138
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	4.63	Soft solder	924950

Material Composition Declaration : note : Substance present with less 0.001mg will not be declared in this document						Mfr Item Name	HNBH*Z70P81R					
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	1.626	mg	supplier	die	Silicon (Si)	7440-21-3		1.547	mg	951298	1381
				supplier	metallization	Aluminium (Al)	7429-90-5		0.010	mg	6149	9
				supplier	metallization	Gold (Au)	7440-57-5		0.007	mg	4305	6
				supplier	passivation	Nickel (Ni)	7440-02-0		0.007	mg	4305	6
				supplier	metallization	Titanium (Ti)	7440-32-6		0.001	mg	614	1
				supplier	metallization	Tungsten (W)	7440-33-7		0.002	mg	1230	2
				supplier	Passivation	Silicon Oxide	7631-86-9		0.009	mg	5534	8
				supplier	back side metallization	Titanium (Ti)	7440-32-6		0.001	mg	615	1
				supplier	back side metallization	Gold (Au)	7440-57-5		0.002	mg	1230	2
				supplier	back side metallization	Nickel (Ni)	7440-02-0		0.011	mg	6764	10
				supplier	polymer die coating	Durimide	Proprietary		0.029	mg	17956	26
				Lead-frame	Copper & its alloys	930.110	mg	supplier	alloy	Copper (Cu)	7440-50-8	
supplier	alloy	Zinc (Zn)	7440-66-6						0.037	mg	40	33
supplier	alloy	Iron (Fe)	7439-89-6						0.093	mg	100	83
supplier	alloy	Iron Phosphide(FeP)	26508-33-8						0.316	mg	340	282
supplier	alloy	Iron Phosphide(FeP)	26508-33-8						0.316	mg	340	282
Die Attach	Other Organic Materials	5.010	mg	supplier	solder ball	Silver (Ag)	7440-22-4		0.125	mg	24950	112
				supplier	solder ball	Tin (Sn)	7440-31-5		0.251	mg	50100	224
				JIG R	solder ball	Lead (Pb)	7439-92-1	7a-Lead in high mel	4.634	mg	924950	4138
Encapsulation	Other Organic Materials	172.255	mg	supplier	mold compound	Silica fused	7631-86-9		68.826	mg	399559	61452
				supplier	mold compound	silica quartz	14808-60-7		99.119	mg	575420	88499
				supplier	mold compound	phenolic resin	9003-35-4		3.448	mg	20017	3077
				supplier	mold compound	carbon black	1333-86-4		0.862	mg	5004	770
Connection coating	Other inorganic materials	10.999	mg	supplier	solder alloy	Tin (Sn)	7440-31-5		10.999	mg	1000000	9821