



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 *	2018-11-26
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
STPS160A	HNSR*Z25M81V	A	ZA41	2018-11-26
	Amount	UoM	Unit type	ST ECOPACK Grade
	70.00	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
1	260	3		
Bulk Solder Termination	Terminal Plating	Terminal Base Alloy	Comment	
Not Applicable	Tin (Sn), matte	Copper Alloy		

Package Designator	Size	Nbr of instances	Shape	
SOJ	4.3-2.77-2	2	j bend	
Comment	SMA			

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 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	0.01	Die	171
Lead	2.62	Soft solder	37357

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				FALSE
CategoryLevel_Name	CategoryLevel_Threshold	amount in product (mg)	Application	ppm in product
Lead	1000 ppm	2.62	Soft solder	37357
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	2.62	Soft solder	925009

Material Composition Declaration : note : Substance present with less 0.001mg will not be declared in this document						Mfr Item Name	HNSR*225M81V					
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	1.279	mg	supplier	die	Silicon (Si)	7440-21-3		1.086	mg	849101	15514
				supplier	metallization	Aluminium (Al)	7429-90-5		0.045	mg	35184	643
				supplier	passivation	Nickel (Ni)	7440-02-0		0.005	mg	3909	71
				supplier	metallization	Titanium (Ti)	7440-32-6		0.001	mg	781	14
				supplier	metallization	Tungsten (W)	7440-33-7		0.002	mg	1564	29
				supplier	Passivation	Silicon Oxide	7631-86-9		0.007	mg	5473	100
				supplier	back side metallization	Titanium (Ti)	7440-32-6		0.001	mg	782	14
				supplier	back side metallization	Gold (Au)	7440-57-5		0.002	mg	1564	29
				supplier	back side metallization	Nickel (Ni)	7440-02-0		0.007	mg	5473	100
				supplier	polymer die coating	Durimide	Proprietary		0.123	mg	96169	1757
Leadframe & Clip	Copper and its alloy	26.692	mg	supplier	alloy	Copper (Cu)	7440-50-8		26.679	mg	999513	381129
				supplier	alloy	Zinc (Zn)	7440-66-6		0.001	mg	38	14
				supplier	alloy	Iron (Fe)	7439-89-6		0.003	mg	112	43
				supplier	alloy	Iron Phosphide (FeP)	26508-33-8		0.009	mg	337	129
Soft solder	Solder	2.827	mg	supplier	solder	Silver (Ag)	7440-22-4		0.070	mg	24761	1000
				supplier	solder	Tin (Sn)	7440-31-5		0.142	mg	50230	2029
				JIG - R	solder	Lead (Pb)	7439-92-1	7a-Lead in high mel	2.615	mg	925009	37357
Encapsulation	Other inorganic materials	38.567	mg	supplier	mold compound	Amorphous Silica	7631-86-9		23.765	mg	616200	339500
				supplier	mold compound	Quartz	14808-60-7		7.713	mg	199990	110186
				supplier	mold compound	epoxy resin	25068-38-6		4.628	mg	119999	66114
				supplier	mold compound	phenolic resin	9003-35-4		2.314	mg	59999	33057
				supplier	mold compound	Bismuth trioxide	1304-76-3		0.027	mg	700	386
				supplier	mold compound	chlorine residue	7782-50-5		0.004	mg	104	57
				supplier	mold compound	Carbon black	1333-86-4		0.116	mg	3008	1657
Connections coating	Solder	0.635	mg	supplier	solder alloy	Tin (Sn)	7440-31-5		0.635	mg	1000000	9071