



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 *	2018-12-07
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 *	Giovanni Giacopello	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
STTH1R06AF	HA3E*V09B81N	A	Z6IA	2018-12-07
	Amount	UoM	Unit type	ST ECOPACK Grade
	26.4	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	
QFF	1.75X4.7X0.98	NA	flat	
Comment	SOD128-FLAT NEP			

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	417
Lead	2.65	Soft solder	100189

QueryList : REACH-27th June 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	2.65	Soft solder	100189
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	2.65	Soft solder	950072

Material Composition Declaration : note : Substance present with less 0.001mg will not be declared in this document						Mfr Item Name	HA3E*V09B81N					
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	0.846	mg	supplier	die	Silicon (Si)	7440-21-3		0.815	mg	963357	30871
				supplier	metallization	Aluminium (Al)	7429-90-5		0.006	mg	7092	227
				supplier	metallization	Gold (Au)	7440-57-5		0.004	mg	4728	152
				supplier	passivation	Nickel (Ni)	7440-02-0		0.004	mg	4728	152
				supplier	metallization	Titanium (Ti)	7440-32-6		0.001	mg	1182	38
				supplier	metallization	Tungsten (W)	7440-33-7		0.001	mg	1182	38
				supplier	Passivation	Silicon Oxide	7631-86-9		0.006	mg	7092	227
				supplier	back side metallization	Titanium (Ti)	7440-32-6		0.001	mg	1182	38
				supplier	back side metallization	Gold (Au)	7440-57-5		0.001	mg	1182	38
				supplier	back side metallization	Nickel (Ni)	7440-02-0		0.007	mg	8275	265
Leadframe & Clip	Copper and its alloys	12.155	mg	supplier	alloy	Copper (Cu)	7440-50-8		12.076	mg	993501	457424
				supplier	alloy	Iron (Fe)	7439-89-6		0.072	mg	5923	2727
				supplier	alloy	Iron Phosphide (Fe ₂ P)	1310-43-6		0.004	mg	329	152
				supplier	alloy	Zinc (Zn)	7440-66-6		0.003	mg	247	114
Die Attach	Other organic materials	2.784	mg	JIG R	soft solder	Lead (Pb)	7439-92-1	7a-Lead in high mel	2.645	mg	950072	100189
				supplier	soft solder	Tin (Sn)	7440-31-5		0.139	mg	49928	5265
Encapsulation	Other organic materials	10.316	mg	supplier	mold compound	Silica, vitreous	60676-86-0		6.316	mg	612253	239242
				supplier	mold compound	Epoxy Cresol Novolak	29690-82-2		1.699	mg	164696	64356
				supplier	mold compound	Metal hydroxide	21645-51-2		1.361	mg	131931	51553
				supplier	mold compound	Phenol resin	9003-35-4		0.906	mg	87825	34318
				supplier	mold compound	carbon black	1333-86-4		0.034	mg	3295	1288
Connection coating	Other inorganic materials	0.299	mg	supplier	solder alloy	Tin (Sn)	7440-31-5		0.299	mg	1000000	11326