



Materials Declaration Form

IPC Form Type *	1752 Distribute	Version	2
Sectionals *	Material Info Manufacturing Info	Subsectionals *	A-D <i>* : Required Field</i>

Supplier Information			
Company Name *	STMicroelectronics	Response Date *	2019-03-20
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 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
STTH806DIRG	HZUR*D39B11P	A	3068	2019-03-20
	Amount	UoM	Unit type	ST ECOPACK Grade
	1760	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, annealed	Copper Alloy		

Package Designator	Size	Nbr of instances	Shape	
SIP	10 - 15.5 - 4.5	2	Through-hole	
Comment	Package: DO 220 AB ISOL.			

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	3.56	Die - Leadframe	2020
Lead	3.11	Soft solder	1766

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	3.11	Soft solder	1766
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	3.11	Soft solder	920367

Material Composition Declaration : note : Substance present with less 0.001mg will not be declared in this document						Mfr Item Name	HZUR* D39811P					
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	5.096	mg	supplier	die	Silicon (Si)	7440-21-3		4.930	mg	967425	2801
				supplier	metallization	Aluminium (Al)	7429-90-5		0.086	mg	16876	49
				supplier	Passivation	Silicon Oxide	7631-86-9		0.049	mg	9615	28
				supplier	back side metallization	Titanium (Ti)	7440-32-6		0.002	mg	392	1
				supplier	back side metallization	Gold (Au)	7440-57-5		0.005	mg	982	4
Leadframe and slug	M-004 Copper and its alloys	1417.006	mg	supplier	back side metallization	Nickel (Ni)	7440-02-0		0.024	mg	4710	14
				supplier	alloy	Copper (Cu)	7440-50-8		1411.864	mg	996371	802195
				supplier	alloy	Iron (Fe)	7439-89-6		1.414	mg	998	803
				supplier	alloy	Iron Phosphide (FeP)	26508-33-8		0.424	mg	299	241
				supplier	metallization	Nickel (Ni)	7440-02-0		3.304	mg	2332	1877
Soft solder	Solder	3.378	mg	SVHC	solder	Lead (Pb)	7439-92-1	7a-Lead in high mek	3.109	mg	920367	1766
				supplier	solder	Silver (Ag)	7440-22-4		0.084	mg	24867	48
				supplier	solder	Tin (Sn)	7440-31-5		0.168	mg	49734	95
				supplier	solder	flux residue	Proprietary		0.017	mg	5032	10
Bonding wires	M-003 Aluminum and its alloys	1.773	mg	supplier	wire	Aluminium (Al)	7429-90-5		1.773	mg	1000000	1007
Encapsulation	M-011 Other inorganic materials	305.780	mg	supplier	mold compound	Silica, vitreous	60676-86-0		232.392	mg	759997	132041
				supplier	mold compound	Epoxy Cresol Novolak	29690-82-2		31.190	mg	102001	17722
				supplier	mold compound	Phenol resin	9003-35-4		18.347	mg	60001	10424
				supplier	mold compound	Others	Proprietary		15.289	mg	50000	8687
				supplier	mold compound	Metal hydroxide	Proprietary		6.116	mg	20002	3475
connections coating	Solder	4.209	mg	supplier	mold compound	Carbon black	1333-86-4		2.446	mg	7999	1390
				supplier	solder alloy	Tin (Sn)	7440-31-5		4.209	mg	1000000	2391
ceramic		22.758	mg	supplier	ceramic	Alumina	1344-28-1		22.530	mg	989982	12801
				supplier	metallization	Nickel (Ni)	7440-02-0		0.228	mg	10018	130