



## Materials Declaration Form

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

Supplier Information			
<b>Company Name *</b>	STMicroelectronics	<b>Response Date *</b>	2017-10-25
<b>Company Unique ID</b>	NL 008751171801		
<b>Contact Name *</b>	Refer to Supplier Comment section		Refer to Supplier Comment section
<b>Contact Phone *</b>	Refer to Supplier Comment section	<b>Contact Email *</b>	Refer to Supplier Comment section
<b>Authorized Representative *</b>	Giovanni Giacobello	<b>Representative Title</b>	ADG MD CHAMPION
<b>Representative Phone *</b>	Refer to Supplier Comment section	<b>Representative Email *</b>	Refer to Supplier Comment section
<b>Supplier Comment</b>	Online Technical Support - STMicroelectronics : <a href="http://www.st.com/web/en/support/support.html">http://www.st.com/web/en/support/support.html</a>		

**Uncertainty Statement**

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**Legal Statement**

<b>Supplier Acceptance *</b>	true	<b>Legal Declaration *</b>	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
STGIPS20K60	IMW>(*KV65662	A	SH1A	2017-10-25
	Amount	UoM	Unit type	ST ECOPACK Grade
	13260	mg	Each	ECOPACK® 1
	Comment	ECOPACK® or ECOPACK® 1 is STMicroelectronics trade name for ROHS compliant devices		

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	
Not Applicable	Tin (Sn), matte, annealed	Copper Alloy	

Package Designator	Size	Nbr of instances	Shape
DIP	44.40x22.00x5.40	25	Through-hole
Comment	Package: SDIP 25L		

QueryList : RoHS Directive 2011/65/EU-July 2011 – Annex II amended by Directive 2015/863-April 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
7c-1	Electrical and electronic components containing lead in a glass or ceramic other than dielectric ceramic in capacitors, e.g. piezoelectric devices, or in a glass or ceramic matrix compound

QueryList : California Prop65 list, dated 7th July 2017			
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	37.00	Die - Board - Capacitprs - Resistors	2791

QueryList : REACH-7th July 2017				
Query				Response
1 - Product(s) does not contain REACH Substances Of Very High Concern above the limits per the definition within REACH				true
CategoryLevel_Name	CategoryLevel_Threshold	amount in product (mg)	Application	ppm in product

Material Composition Declaration : note : Substance present with less 0.001mg will not be declared in this document						Mfr Item Name	IMW(*KV65662				11000000.0	1000000.0
Homogeneous Material	Material Group	Mass	UoM	Level	Substance Category	Substance	CAS	Exempt	Mass	UoM	Concentration in homogeneous material (ppm)	Concentration in product (ppm)
Dies	M-011 Other inorganic materials	62.883	mg	supplier	die	Silicon (Si)	7440-21-3		59.636	mg	948364	4497
				supplier	metallization	Aluminium (Al)	7429-90-5		1.773	mg	28195	133
				supplier	Passivation	Silicon Nitride	12033-89-5		0.373	mg	5932	28
				supplier	Passivation	Silicon Oxide	7631-86-9		0.834	mg	13263	63
				supplier	back side metallization	Titanium (Ti)	7440-32-6		0.002	mg	32	0
				supplier	back side metallization	Chromium (Cr)	7440-47-3		0.018	mg	286	1
				supplier	back side metallization	Gold (Au)	7440-57-5		0.011	mg	175	1
				supplier	back side metallization	Nickel (Ni)	7440-02-0		0.186	mg	2958	14
supplier	back side metallization	Silver (Ag)	7440-22-4		0.050	mg	795	4				
Leadframe	M-004 Copper and its alloys	2092.402	mg	supplier	alloy	Copper (Cu)	7440-50-8		2039.045	mg	974500	153774
				supplier	alloy	Iron (Fe)	7439-89-6		47.958	mg	22920	3617
				supplier	alloy	Iron Phosphide (FeP)	26508-33-8		2.888	mg	1380	218
				supplier	alloy	Zinc (Zn)	7440-66-6		2.511	mg	1200	189
Die attach	M-011 Other inorganic materials	0.254	mg	supplier	glue or tape	Quartz	14808-60-7		0.127	mg	500000	10
				supplier	glue or tape	Bisphenol F type epoxy resin	9003-36-5		0.076	mg	299213	6
				supplier	glue or tape	Epoxyde Bisphenol A Resin	25068-38-6		0.013	mg	51181	1
				supplier	glue or tape	1,4-bis(2,3-epoxypropoxy)butane	2425-79-8		0.038	mg	149606	3
Bonding wire	M-008 Precious metals	0.695	mg	supplier	wire	Gold (Au)	7440-57-5		0.505	mg	726619	38
	M-009 Other non-ferrous metals and			supplier	wire	Aluminium (Al)	7429-90-5		0.189	mg	271942	14
Board	M-011 Other inorganic materials	655.746	mg	supplier	wire	Magnesium (Mg)	7439-95-4		0.001	mg	1439	0
				supplier	board	Glass fibers	65997-17-3		320.734	mg	489113	24188
				supplier	board	epoxy resin	Proprietary		166.568	mg	254013	12562
				supplier	board	solder mask	Proprietary		36.343	mg	55422	2741
				supplier	board	Barium sulfate	7727-43-7		10.815	mg	16493	816
				supplier	Brominated Flame Retardant (other than PE	brominated compound	Proprietary		7.212	mg	10998	544
				supplier	metallization	Copper (Cu)	7440-50-8		69.224	mg	105565	5221
				supplier	metallization	Nickel (Ni)	7440-02-0		36.775	mg	56081	2773
				supplier	metallization	Gold (Au)	7440-57-5		8.075	mg	12315	609
				supplier	metallization	Silver (Ag)	7440-22-4		0.758	mg	957071	57
encapsulation	M-011 Other inorganic materials	7241.158	mg	supplier	mold compound	Silica, vitreous	60676-86-0		5916.026	mg	817000	446156
				supplier	mold compound	epoxy resin	Proprietary		724.116	mg	100000	54609
				supplier	mold compound	Phenol resin	Proprietary		506.881	mg	70000	38226
				supplier	mold compound	Carbon Black	1333-86-4		21.724	mg	3000	1638
solder paste	Solder	0.792	mg	supplier	mold compound	metal hydroxide	Proprietary		72.411	mg	10000	5461
				supplier	solder	Silver (Ag)	7440-22-4		0.758	mg	957071	57
				supplier	solder	Tin (Sn)	7440-31-5		0.026	mg	32828	2
				supplier	solder	flux residue	Proprietary		0.008	mg	10101	1
connections coating	Solder	15.033	mg	supplier	solder alloy	Tin (Sn)	7440-31-5		15.033	mg	1000000	1134
Capacitors	M-010 Ceramics / glass	0.154	mg	supplier	Ceramic isolator	BaTiO3 type	12047-27-7		0.101	mg	655844	8
				supplier	Ceramic isolator	silica	112945-52-5		0.001	mg	6493	0
				supplier	Ceramic isolator	Nickel (Ni)	7440-02-0		0.029	mg	188312	2
				supplier	Ceramic isolator	Copper (Cu)	7440-50-8		0.018	mg	116883	1
				supplier	Ceramic isolator	Tin (Sn)	7440-31-5		0.005	mg	32468	0
Resistors	M-010 Ceramics / glass	5.123	mg	supplier	ceramic	alumina	7429-90-5		5.018	mg	979504	378
				supplier	ceramic	silica	7631-86-9		0.034	mg	6637	3
				supplier	ceramic	magnesium oxide	1309-48-4		0.024	mg	4685	2
				supplier	ceramic	Ruthenium oxide	12036-10-1		0.009	mg	1757	1
JIG - R				supplier	Dielectric	Lead borate Glass	65997-18-4	7c-1-Electrical and e	0.010	mg	1952	1
				supplier	resin	epoxy resin	25068-38-6		0.001	mg	195	0
				supplier	resin	Diethylene glycol monobutyl ether	112-34-5		0.001	mg	195	0
				supplier	electrode	Silver (Ag)	7440-22-4		0.006	mg	1171	0
				supplier	finishing	Nickel (Ni)	7440-02-0		0.013	mg	2538	1
				supplier	finishing	Tin (Sn)	7440-31-5		0.007	mg	1366	1
DBC	M-010 Ceramics / glass	3185.760	mg	supplier	ceramic	Aluminum oxide	1302-74-5		1381.680	mg	433705	104199
				supplier	ceramic	Calcium oxide	1305-78-8		21.713	mg	6816	1637
				supplier	metallization	Copper (Cu)	7440-50-8		1782.367	mg	559479	134417