



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 *	2017-03-31
Contact Name *	Refer to Supplier Comment section		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
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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 omprehensive 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
STGIPL14K60	IML(*KV64662	A	SH1A	2017-03-31
Amount	UoM	Unit type	ST ECOPACK Grade	
16000.00	mg	Each	ECOPACK® 2	

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	
DIP	4.85X3.9X1.52	38	Through-hole	
Comment	Package: SDIP 38L Molded			

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	true
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)	false
4 - Product(s) does not meet EU RoHS requirements and is not under exemptions	false
5 - Product(s) is obsolete, no information is available	false
6 - Product(s) is unknown, no information is available	false
Exemption Id.	Description

QueryList : REACH-12th January 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						Mfr Item Name	IML(*KV6462	16000.0000					
Homogeneous Material	Material Group	Mass	UoM	Level	Substance Category	Substance	CAS	Exempt	Mass	UoM	Concentration in homogeneous material (ppm)	Concentration in product (ppm)	
Dies	Copper & its alloys	117.620	mg	supplier	die	Silicon (Si)	7440-21-3		91.287	mg	776118	5705	
				supplier	metallization	Aluminium (Al)	7429-90-5		11.577	mg	98427	724	
				supplier	metallization	Copper (Cu)	7440-50-8		0.904	mg	7686	57	
				supplier	back side metallization	Chromium (Cr)	7440-47-3		0.038	mg	323	2	
				supplier	back side metallization	Titanium (Ti)	7440-32-6		0.007	mg	60	0	
				supplier	back side metallization	Gold (Au)	7440-57-5		0.031	mg	264	2	
				supplier	back side metallization	Nickel (Ni)	7440-02-0		0.130	mg	1105	8	
				supplier	polymer die coating	PIXI Gamma-butyrolactone	96-48-0		13.646	mg	116018	853	
				supplier	alloy	Copper (Cu)	7440-50-8		2329.037	mg	974500	145565	
				supplier	alloy	Iron (Fe)	7439-89-6		54.779	mg	22920	3424	
Leadframe	Other inorganic materials	2389.982	mg	supplier	alloy	Zinc (Zn)	7440-66-6		2.868	mg	1200	179	
				supplier	alloy	Iron Phosphide (Fe2P)	1310-43-6		3.298	mg	1380	206	
				supplier	solder	Silver (Ag)	7440-22-4		27.276	mg	956985	1705	
				supplier	solder	Tin (Sn)	7440-31-5		1.226	mg	43015	77	
Soft solder	Solder	28.502	mg	supplier	glue	Quartz	14808-60-7		3.223	mg	500000	201	
				supplier	glue	Bisphenol F type epoxy resin	9003-36-5		1.934	mg	300031	121	
Die attach	Other inorganic materials	6.446	mg	supplier	glue	Epoxyde Bisphenol A Resin	25068-38-6		0.322	mg	49953	20	
				supplier	glue	1,4-bis(2,3-epoxypropoxy)butane	2425-79-8		0.967	mg	150016	60	
				supplier	wire	Gold (Au)	7440-57-5		0.505	mg	38258	32	
				supplier	wire	Aluminium (Al)	7429-90-5		12.687	mg	961136	793	
				supplier	wire	Magnesium (Mg)	7439-95-4		0.008	mg	606	1	
				supplier	ceramic	Alumina	7429-90-5		8.310	mg	971930	519	
				supplier	ceramic	Silica	7631-86-9		0.060	mg	7018	4	
				supplier	ceramic	Magnesium oxide	1309-48-4		0.030	mg	3509	2	
				supplier	ceramic	Ruthenium oxide	12036-10-1		0.015	mg	1754	1	
				supplier	JIG - R	ceramic	Lead borate Glass	65997-18-4		0.015	mg	1754	1
Bonding wires	Precious metals	13.200	mg	supplier	metallization	Silver (Ag)	7440-22-4		0.090	mg	10526	6	
				supplier	metallization	Nickel (Ni)	7440-02-0		0.015	mg	1754	1	
				supplier	metallization	Tin (Sn)	7440-31-5		0.015	mg	1754	1	
				supplier	ceramic	BaTiO3 type	12047-27-7		6.300	mg	656250	394	
				supplier	ceramic	Silica	112945-52-5		0.060	mg	6250	4	
				supplier	metallization	Nickel (Ni)	7440-02-0		1.680	mg	175000	105	
				supplier	metallization	Copper (Cu)	7440-50-8		1.140	mg	118750	71	
				supplier	metallization	Nickel (Ni)	7440-02-0		0.120	mg	12500	8	
				supplier	metallization	Tin (Sn)	7440-31-5		0.300	mg	31250	19	
				supplier	ceramic	Manganese oxide	1317-35-7		2.497	mg	475619	156	
Capacitor	Other inorganic materials	9.600	mg	supplier	ceramic	Cobalt oxide	1308-06-1		1.291	mg	245905	81	
				supplier	ceramic	Nickel oxide	1313-99-1		0.387	mg	73714	24	
				supplier	ceramic	Copper oxide	1317-38-0		0.130	mg	24762	8	
				supplier	JIG - R	ceramic	Lead borate Glass	65997-18-4		0.588	mg	112000	37
				supplier	metallization	Silver (Ag)	7440-22-4		0.330	mg	62857	21	
				supplier	metallization	Nickel (Ni)	7440-02-0		0.011	mg	2095	1	
				supplier	metallization	Tin (Sn)	7440-31-5		0.016	mg	3048	1	
				supplier	ceramic	Alumina	1344-28-1		1724.036	mg	433705	107752	
				supplier	ceramic	Calcium oxide	1305-78-8		27.092	mg	6815	1693	
				supplier	metallization	Copper (Cu)	7440-50-8		2224.006	mg	559480	139000	
NTC	Other inorganic materials	5.250	mg	supplier	board	Glass fibers	65997-17-3		405.001	mg	489115	25313	
				supplier	board	Epoxy resin	25068-38-6		210.330	mg	254013	13146	
				supplier	board	Solder mask	Proprietary		45.891	mg	55422	2868	
				supplier	board	Barium sulfate	7727-43-7		13.657	mg	16493	854	
				supplier	JIG - I	board	Brominated compound	68541-56-0		9.105	mg	10996	569
				supplier	metallization	Copper (Cu)	7440-50-8		87.410	mg	105564	5463	
				supplier	metallization	Nickel (Ni)	7440-02-0		46.437	mg	56081	2902	
				supplier	metallization	Gold (Au)	7440-57-5		10.197	mg	12315	637	
PCB	Other inorganic materials	828.028	mg	supplier	die	Silicon (Si)	7440-21-3		0.360	mg	9820	23	
				supplier	Leadframe	Manganese (Mn)	7439-96-5		0.060	mg	1637	4	
				supplier	Leadframe	Iron (Fe)	7439-89-6		5.790	mg	157933	362	
				supplier	Leadframe	Cobalt (Co)	7440-48-4		0.048	mg	1309	3	
				supplier	Leadframe	Silicon (Si)	7440-21-3		0.012	mg	327	1	
				supplier	Leadframe	Silicon (Si)	7440-21-3		0.012	mg	327	1	
SOT 323 Diodes	Other inorganic materials	36.661	mg	supplier	die	Silicon (Si)	7440-21-3		0.360	mg	9820	23	
				supplier	Leadframe	Manganese (Mn)	7439-96-5		0.060	mg	1637	4	
				supplier	Leadframe	Iron (Fe)	7439-89-6		5.790	mg	157933	362	
				supplier	Leadframe	Cobalt (Co)	7440-48-4		0.048	mg	1309	3	
				supplier	Leadframe	Silicon (Si)	7440-21-3		0.012	mg	327	1	
				supplier	Leadframe	Silicon (Si)	7440-21-3		0.012	mg	327	1	

