



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 *	2015-01-25
Contact Name *	Refer to Supplier Comment section		Refer to Supplier Comment section
Authorized Representative *	Rossana Bonaccorso	Representative Title	IPD 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	<p>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.</p>		

Product				
Mfr Item Number	Mfr Item Name	Version	Mfr Site	Date
LDCL015MR	HVVV*UQ56CA5	A	ZS1A	2015-01-25
Amount		UoM	Unit type	ST ECOPACK Grade
17.10		mg	Each	ECOPACK® 2

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	
NAC	Nicke/Palladium/Gold (Ni/Pd/Au)	Copper Alloy		

Package Designator	Size	Nbr of instances	Shape	
DSO	2.8 - 1.5 - 0.9	5	gull wing	
Comment	Package: SOT 23 5L			

QueryList : ROHS directive 2011/65/EU _ July 2011	
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-17th December 2015				
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	HVWV*UQ56CAS					
Homogeneous Material	Material Group	Mass	UoM	Level	Substance Category	Substance	CAS	Exempt	Mass	UoM	Concentration in homogeneous material (ppm)	Concentration in product (ppm)
Die or Dies (choose)	Other inorganic materials	0.563	mg	supplier	die	Silicon (Si)	7440-21-3		0.532	mg	944938	31111
				supplier	metallization	Aluminium (Al)	7429-90-5		0.007	mg	12433	409
				supplier	metallization	Tungsten (W)	7440-33-7		0.005	mg	8881	292
				supplier	Passivation	Silicon Nitride	12033-89-5		0.001	mg	1776	58
				supplier	Passivation	Silicon Oxide	7631-86-9		0.011	mg	19538	643
				supplier	polymer die coating	PIX1 Gamma-butyrolactone	96-48-0		0.007	mg	12433	409
Leadframe	Copper & its alloys	7.333	mg	supplier	alloy	Copper (Cu)	7440-50-8		7.064	mg	963317	413099
				supplier	alloy	Iron (Fe)	7439-89-6		0.165	mg	22501	9649
				supplier	alloy	Phosphorus (P)	12185-10-3		0.002	mg	273	117
				supplier	alloy	Zinc (Zn)	7440-66-6		0.009	mg	1227	526
				supplier	metallization	Nickel (Ni)	7440-02-0		0.085	mg	11591	4971
				supplier	metallization	Palladium (Pd)	7440-05-3		0.007	mg	955	409
Die attach	Other Organic Materials	0.070	mg	supplier	metallization	Gold (Au)	7440-57-5		0.001	mg	136	58
				supplier	glue	Silver (Ag)	7440-22-4		0.048	mg	685714	2807
				supplier	glue	methylene diacrylate	42594-17-2		0.018	mg	257143	1053
				supplier	glue	Dicyclopentenylxyethyl methacrylate	68586-19-6		0.002	mg	28571	117
				supplier	glue	Polymer of Polybutadiene + Anhydride	Proprietary		0.002	mg	28571	117
				supplier	wire	Gold (Au)	7440-57-5		0.153	mg	1000000	8947
Encapsulation	Other Organic Materials	8.981	mg	supplier	molding compound	Silica, vitreous	60676-86-0		7.660	mg	852912	447953
				supplier	molding compound	phenolic resin	29690-82-2		0.314	mg	34963	18363
				supplier	molding compound	epoxy resin	25068-38-6		0.359	mg	39973	20994
				supplier	molding compound	Biphenyl epoxy resin	85954-11-6		0.180	mg	20042	10526
				supplier	molding compound	carbon black	1333-86-4		0.019	mg	2116	1111
				supplier	molding compound	Zinc hydroxide	20427-58-1		0.090	mg	10021	5263
				supplier	molding compound	Magnesium hydroxide	1309-42-8		0.359	mg	39973	20994