



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 *	2016-01-21
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
LD29080S33R	RFL*NG33FC2	A	Z8GA	2016-01-21
	Amount	UoM	Unit type	ST ECOPACK Grade
	123.70	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	Tin (Sn), matte	Copper Alloy		

Package Designator	Size	Nbr of instances	Shape	
SOT	6.5X3.5X1.8	6	gull wing	
Comment	Package: SOT 223			

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	RFL*NG33FC2					
Homogeneous Material	Material Group	Mass	UoM	Level	Substance Category	Substance	CAS	Exempt	Mass	UoM	Concentration in homogeneous material (ppm)	Concentration in product (ppm)
Die	Other inorganic materials	2.380	mg	supplier	die	Silicon (Si)	7440-21-3		2.263	mg	950840	18294
				supplier	metallization	Aluminium (Al)	7429-90-5		0.035	mg	14706	283
				supplier	Passivation	Silicon Nitride	12033-89-5		0.010	mg	4202	81
				supplier	Passivation	Silicon Oxide	7631-86-9		0.019	mg	7983	154
				supplier	back side metallization	Chromium (Cr)	7440-47-3		0.002	mg	840	16
				supplier	back side metallization	Gold (Au)	7440-57-5		0.005	mg	2101	40
				supplier	back side metallization	Nickel (Ni)	7440-02-0		0.016	mg	6723	129
				supplier	polymer die coating	PIX1 Gamma-butyrolactone	96-48-0		0.030	mg	12605	243
Leadframe	Copper and its alloy	58.726	mg	Supplier	Alloy	Copper(CU)	7440-50-8		57.936	mg	986548	468359
				Supplier	Alloy	Iron(Fe)	7439-89-6		0.058	mg	988	469
				Supplier	Alloy	Iron phosphide (Fe2P)	1310-43-6		0.017	mg	289	137
				Supplier	Alloy	Silver(Ag)	7440-22-4		0.715	mg	12175	5780
Die Attach	Other Organic Material	0.524	mg	Supplier	Epoxy	Silver(Ag)	7440-22-4		0.362	mg	690840	2926
				Supplier	Epoxy	Acrylate resin	Proprietary		0.108	mg	206107	873
				Supplier	Epoxy	Heterocyclic organic compound	Proprietary		0.038	mg	72519	307
				Supplier	Epoxy	Treated silica	112-07-2		0.016	mg	30534	129
Bonding wire	Other Inorganic Material	0.138	mg	Supplier	Bonding wire	Copper(CU)	7440-50-8		0.138	mg	1000000	1116
Encapsulation	Other Organic Material	61.137	mg	Supplier	Molding compound	phenolic resin	29690-82-2		1.793	mg	29328	14495
				Supplier	Molding compound	epoxy resin	9003-35-4		1.793	mg	29328	14495
				Supplier	Molding compound	Biphenyl epoxy resin	85954-11-6		3.091	mg	50559	24988
				Supplier	Molding compound	Carbon Black	1333-86-4		0.062	mg	1014	501
				Supplier	Molding compound	Silica	60676-86-0		54.398	mg	889772	439757
Finishing	Other Inorganic Material	0.795	mg	Supplier	Connection Coating	Tin(Sn)	7440-31-5		0.795	mg	1000000	6427