



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 *	2015-06-19
Contact Name *	Refer to "Supplier Comment" section	Contact Title	Refer to "Supplier Comment" section
Contact Phone *	Refer to "Supplier Comment" section	Contact Email *	Refer to "Supplier Comment" section
Authorized Representative *	Laurent TOSI	Representative Title	MMS MD CHAMPION
Representative Phone *	33 442 685 795	Representative Email *	laurent.tosi@st.com
Supplier Comment	Online Technical Support - STMicroelectronics : http://www.st.com/web/en/support/online_tech_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
STM32F051R8T7	G45W*440XXXB	A	9988	2014-04-16
Amount	UoM	Unit type	ST ECOPACK Grade	
389,00	mg	Each	ECOPACK® 2	

Manufacturing information				
J-STD-020 MSL Rating	Classification Temp	Nbr of Reflow Cycles	 life.augmented	
3	260	3		
bulk Solder Termination	Terminal Plating	Terminal Base Alloy	Comment	
NAC	Tin (Sn), matte	Copper Alloy		

Package Designator	Size	Nbr of instances	Shape	
QFP	10x10x1.4	64	L bend	
Comment	Package: LQFP 64L 10x10x1.4			

QueryList : ROHS directive 2011/65/EU _ July 2011	
Query	Response
Product(s) meets EU RoHS requirement without any exemptions	true
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
Product(s) meets EU RoHS requirements by application of the selected exemption(s)	false
Product(s) does not meet EU RoHS requirements and is not under exemptions	false
Product(s) is obsolete, no information is available	false
Product(s) is unknown, no information is available	false
Exemption Id.	Description

QueryList : REACH-16th December 2013				
Query				Response
The product 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	G45W*440XXXB					
Homogeneous Material	Material Group	Mass	UoM	Level	Substance Category	Substance	CAS	Exempt	Mass	UoM	Concentration in homogeneous material (ppm)	Concentration in product (ppm)
die (s)	Other inorganic materials	6,805	mg	supplier	die	Silicon (Si)	7440-21-3		6,584	mg	967524	16925
die (s)				supplier	metallization	Aluminum (Al)	7429-90-5		0,019	mg	2792	49
die (s)				supplier	metallization	Copper (Cu)	7440-50-8		0,019	mg	2792	49
die (s)				supplier	metallization	Titanium (Ti)	7440-32-6		0,040	mg	5878	103
die (s)				supplier	metallization	Tungsten (W)	7440-33-7		0,008	mg	1176	21
die (s)				supplier	passivation	Silicon Oxide(SiO2)	7631-86-9		0,013	mg	1910	33
die (s)				supplier	passivation	Indium Tin oxide (In2O3.SnO2)	50926-11-9		0,122	mg	17928	314
Die attach	Other inorganic materials	2,324	mg	Supplier	Glue	Silver	7440-22-4		1,709	mg	735370	4393
Die attach				Supplier	Glue	Highly cross-linked polymer	Proprietary		0,615	mg	264630	1581
Encapsulation	Other inorganic materials	249,680	mg	Supplier	Mold compound	Epoxy Resin	Proprietary		18,202	mg	72901	46792
Encapsulation				Supplier	Mold compound	Phenol Resin	Proprietary		12,135	mg	48602	31195
Encapsulation				Supplier	Mold compound	Carbon Black	1333-86-4		0,728	mg	2916	1871
Encapsulation				Supplier	Mold compound	Silica Fused	60676-86-0		218,615	mg	875581	561992
Bonding wire	Other inorganic materials	0,670	mg	Supplier	Wire	Gold	7440-57-5		0,670	mg	1000000	1722
Finishing	Other inorganic materials	1,439	mg	Supplier	Connection coating	Tin	7440-31-5		1,439	mg	1000000	3699
Leadframe	Other inorganic materials	128,082	mg	Supplier	Alloy	Copper	7440-50-8		121,887	mg	951632	313334
Leadframe				Supplier	Alloy	Iron	12597-68-1		2,939	mg	22946	7555
Leadframe				Supplier	Alloy	Lead	7439-92-1		0,000	mg	1	0
Leadframe				Supplier	Alloy	Phosphorus	7723-14-0		0,032	mg	250	82
Leadframe				Supplier	Alloy	Zinc	7440-66-6		0,162	mg	1265	416
Leadframe				Supplier	Alloy	Silver	7440-22-4		3,062	mg	23907	7871