



Materials Declaration Form

IPC Form Type *	1752 Distribute	Version	2
Sectionals *	Material Info Manufacturing Info	Subsectionals *	A-D * : Required Field

Supplier Information			
Company Name *	STMicroelectronics	Response Date *	2014-02-19
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 *	Antonella Lanzafame	Representative Title	AMS & IPD Materials Declaration 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/internet/com/support/online_tech_support.jsp		

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 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
	9M)S*UA53BB5	A	ZY1A	2014-02-19
Amount	UoM	Unit type	ST ECOPACK Grade	
123.17	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	
Not Applicable ; if coating is used o	Tin (Sn), matte	Copper Alloy		

Package Designator	Size	Nbr of instances	Shape	
DSO	4,4,9,7,0,9	38	gull wing	
Comment	HTSSOP38 BODY 4,4 PITCH0.5 EXPAD; MD valid also for CP: L6482HTR,L6482H.			

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	9MJS*UA53BB5					
Homogeneous Material	Material Group	Mass	UoM	Level	Substance Category	Substance	CAS	Exempt	Mass	UoM	Concentration in homogeneous material (ppm)	Concentration in product (ppm)
Silicon die	Other inorganic materials	5.763	mg	supplier	Die	Silicon (Si)	7440-21-3		5.43	mg	942218	44085
Silicon die				supplier	metallization	Aluminium (Al)	7429-90-5		0.055	mg	9544	447
Silicon die				supplier	metallization	Titanium Nitride (TiN)	25583-20-4		0.033	mg	5726	268
Silicon die				supplier	metallization	Tungsten (W)	7440-33-7		0.044	mg	7635	357
Silicon die				supplier	backside metallization	Chromium (Cr)	7440-47-3		0.004	mg	694	32
Silicon die				supplier	backside metallization	Gold (Au)	7440-57-5		0.011	mg	1909	89
Silicon die				supplier	backside metallization	Nickel (Ni)	7440-02-0		0.032	mg	5553	260
Silicon die				supplier	backside metallization	Vanadium (V)	7440-62-2		0.002	mg	347	16
Silicon die				supplier	passivation	Silicon Nitride (SiN)	68034-42-4		0.012	mg	2082	97
Silicon die				supplier	passivation	Silicon Oxide(SiO2)	7631-86-9		0.094	mg	16311	763
Silicon die				supplier	passivation	Gamma-butyrolactone	96-48-0		0.031	mg	5379	252
Silicon die				supplier	passivation	Polyhydroxyamide	55295-98-2		0.014	mg	2429	114
Silicon die				supplier	passivation	Alcoxysilane	proprietary		0.001	mg	174	8
LEADFRAME	Copper and its alloy	58.3	mg	supplier	ALLOY	Copper (Cu)	7440-50-8		54.876	mg	961994	445531
LEADFRAME				supplier	ALLOY	Nickel (Ni)	7440-02-0		1.711	mg	29994	13891
LEADFRAME				supplier	ALLOY	Silicon (Si)	7440-21-3		0.371	mg	6504	3012
LEADFRAME				supplier	ALLOY	Magnesium (Mg)	7439-95-4		0.086	mg	1508	698
LEADFRAME				supplier	COATING	Silver (Ag)	7440-22-4		1.256	mg	1000000	10197
DIE ATTACH	Other organic materials	1.246	mg	supplier	GLUE	Epoxy Resin A	proprietary		0.087	mg	69823	706
DIE ATTACH				supplier	GLUE	Epoxy Resin B	proprietary		0.05	mg	40128	406
DIE ATTACH				supplier	GLUE	Silver (Ag)	7440-22-4		0.959	mg	769663	7786
DIE ATTACH				supplier	GLUE	Lactone	96-48-0		0.05	mg	40128	406
DIE ATTACH				supplier	GLUE	Polyoxypropylenediamine	9046-10-0		0.05	mg	40128	406
DIE ATTACH				supplier	GLUE	2,6 Diglycidyl phenyl allyl ether oligomer	Proprietary		0.05	mg	40128	406
BONDING WIRE	Other inorganic materials	0.748	mg	supplier	BONDING WIRE	Gold (Au)	7440-57-5		0.748	mg	1000000	6073
ENCAPSULATION	Other organic materials	53.677	mg	supplier	MOLDING COMPOUND	Multi-aromatic resin	proprietary		4.831	mg	90001	39222
ENCAPSULATION				supplier	MOLDING COMPOUND	Silica, vitreous	60676-86-0		45.089	mg	840006	366071
ENCAPSULATION				supplier	MOLDING COMPOUND	Phenol Resin	proprietary		3.489	mg	65000	28327
ENCAPSULATION				supplier	MOLDING COMPOUND	Carbon Black	1333-86-4		0.268	mg	4993	2176
FINISHING	Other inorganic materials	3.439	mg	supplier	CONNECTION COATING	Tin (Sn)	7440-31-5		3.439	mg	1000000	27921