



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 *	2013-11-13
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 *	Giuseppe Vitali Palma	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
	HZUR*I78R01F	A	SH1A	2013-11-13
Amount	UoM	Unit type	ST ECOPACK Grade	
1760.00	mg	Each	ECOPACK® 2	

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

Package Designator	Size	Nbr of instances	Shape	
SIP	10X9.1X4.5	2	Through-hole	
Comment	Package: DO 220 AB ISOL			

QueryList : ROHS directive 2011/65/EU _ July 2011	
Query	Response
Product(s) meets EU RoHS requirement without any exemptions	false
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)	true
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
7a	Lead in high melting temperature type solders (i.e. lead- based alloys containing 85 % by weight or more lead)

QueryList :REACH-20th June 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	HZUR*178R01F					
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	3.285	mg	supplier	die	Silicon (Si)	7440-21-3		3.158	mg	961339	1794
die (s)				supplier	metallization	Aluminium (Al)	7429-90-5		0.039	mg	11872	22
die (s)				supplier	passivation	Silicon Nitride (SiN)	68034-42-4		0.014	mg	4262	8
die (s)				supplier	passivation	Silicon Oxide(SiO2)	7631-86-9		0.018	mg	5479	10
die (s)				supplier	passivation	Gamma-butyrolactone	96-48-0		0.018	mg	5479	10
die (s)				supplier	passivation	Polyhydroxyamide	55295-98-2		0.008	mg	2435	5
die (s)				supplier	passivation	Alcoxy silane	proprietary		0.001	mg	304	1
die (s)				supplier	back side metallization	Titanium (Ti)	7440-32-6		0.002	mg	609	1
die (s)				supplier	back side metallization	Gold (Au)	7440-57-5		0.005	mg	1522	3
die (s)				supplier	back side metallization	Nickel (Ni)	7440-02-0		0.022	mg	6697	13
Leadframe	Copper & its alloys	1041.824	mg	supplier	alloy	Copper (Cu)	7440-50-8		1040.041	mg	998289	590932
Leadframe				supplier	alloy	Iron (Fe)	7439-89-6		1.041	mg	999	591
Leadframe				supplier	alloy	Iron Phosphide (FeP)	26508-33-8		0.312	mg	299	177
Leadframe	Other inorganic materials			supplier	metallization	Nickel (Ni)	7440-02-0		0.398	mg	382	226
Leadframe				supplier	metallization	Phosphorus (P)	12185-10-3		0.032	mg	31	18
Soft solder	Other organic materials	2.799	mg	JIG R	solder	Lead (Pb)	7439-92-1	7a-Lead in high me	2.617	mg	934977	1487
Soft solder				supplier	solder	Silver (Ag)	7440-22-4		0.042	mg	15005	24
Soft solder				supplier	solder	Tin (Sn)	7440-31-5		0.14	mg	50018	80
Bonding wire	Other inorganic materials	0.67	mg	supplier	wire	Aluminium (Al)	7429-90-5		0.67	mg	1000000	381
encapsulation	Other organic materials	617.981	mg	supplier	mold compound	Silica, vitreous	60676-86-0		469.665	mg	759999	266855
encapsulation				supplier	mold compound	Phenol resin	9003-35-4		37.079	mg	60000	21068
encapsulation				supplier	mold compound	Carbon black	1333-86-4		4.944	mg	8000	2809
encapsulation				supplier	mold compound	Epoxy Cresol Novolak	29690-82-2		63.034	mg	102000	35815
encapsulation				supplier	mold compound	Metal hydroxide	Proprietary		12.36	mg	20001	7023
encapsulation				supplier	mold compound	Others	Proprietary		30.899	mg	50000	17556
connections coating	Solder	4.241	mg	supplier	solder alloy	Tin (Sn)	7440-31-5		4.241	mg	1000000	2410
subelement	Other inorganic materials	89.2	mg	supplier	Ceramic isolator	Nickel (Ni)	7440-02-0		1.07	mg	11996	608
subelement				supplier	Ceramic isolator	Phosphorus (P)	7723-14-0		0.08	mg	897	45
subelement				supplier	Ceramic isolator	Manganese (Mn)	7439-96-5		3.479	mg	39002	1977
subelement				supplier	Ceramic isolator	Titanium (Ti)	7440-32-6		0.366	mg	4103	208
subelement				supplier	Ceramic isolator	Molybdenum oxide	1313-27-5		4.46	mg	50000	2534
subelement				supplier	Ceramic isolator	Alumina (Al2O3)	1344-28-1		79.745	mg	894002	45310