



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 *	2014-05-27
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 *	Giovanni Giacopello	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/web/en/support/online_tech_support.html		

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
	B5V2*U019HAZ	A	BO2A	2014-05-27
Amount	UoM	Unit type	ST ECOPACK Grade	
5592.00	mg	Each	ECOPACK® 1	

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		
Not Applicable ; if coating is used o	Tin (Sn), matte, annealed	Copper Alloy		

Package Designator	Size	Nbr of instances	Shape
ZIP	20 - 10.7 - 4.5	15	Through-hole
Comment	Package: MULTIWATT 15L SPLIT VERT; MDF valid for L4975A		

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-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	BSV2*U019HAZ					
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	18.444	mg	supplier	die	Silicon (Si)	7440-21-3		17.04	mg	923878	3047
die (s)				supplier	metallization	Aluminium (Al)	7429-90-5		0.104	mg	5639	19
die (s)				supplier	passivation	Silicon Nitride (SiN)	68034-42-4		0.095	mg	5151	17
die (s)				supplier	passivation	Silicon Oxide (SiO2)	7631-86-9		0.146	mg	7916	26
die (s)				supplier	passivation	Gamma-butyrolactone	96-48-0		0.073	mg	3958	13
die (s)				supplier	passivation	Polyhydroxyamide	55295-98-2		0.033	mg	1789	6
die (s)				supplier	passivation	Alcoxysilane	proprietary		0.002	mg	108	0
die (s)				supplier	passivation	Aryl Silicic Acid	proprietary		0.001	mg	54	0
die (s)				supplier	back side metallization	Chromium (Cr)	7440-47-3		0.001	mg	54	0
die (s)				supplier	back side metallization	Gold (Au)	7440-57-5		0.003	mg	163	1
die (s)				supplier	back side metallization	Nickel (Ni)	7440-02-0		0.009	mg	488	2
die (s)			mg	supplier	Coating	Polyethylene terephthalate	25038-59-9		0.384	mg	20820	69
die (s)				supplier	Coating	Silica, vitreous	60676-86-0		0.384	mg	20820	69
die (s)				supplier	Coating	Epoxy resin	proprietary		0.075	mg	4066	13
die (s)				supplier	Coating	Acrylic polymer	9003-01-4		0.075	mg	4066	13
die (s)				supplier	Coating	Carbon black	1333-86-4		0.019	mg	1030	3
BUMPS	Solder	0.373	mg	supplier	bump	Tin (Sn)	7440-31-5		0.367	mg	983914	66
BUMPS				supplier	bump	Silver (Ag)	7440-22-4		0.004	mg	10724	1
BUMPS				supplier	bump	Copper (Cu)	7440-50-8		0.002	mg	5362	0
Leadframe	Copper & its alloys	3087.021	mg	supplier	alloy	Copper (Cu)	7440-50-8		3069.461	mg	994312	548902
Leadframe				supplier	alloy	Iron (Fe)	7439-89-6		1.414	mg	458	253
Leadframe				supplier	alloy	Iron Phosphide (FeP)	26508-33-8		2.582	mg	836	462
Leadframe				supplier	metallization	Gold (Au)	7440-57-5		8.736	mg	2830	1562
Leadframe				supplier	metallization	Silver (Ag)	7440-22-4		4.828	mg	1554	863
Soft solder	Solder	10.63	mg	JIG Table A	solder	Lead (Pb)	7439-92-1	7a-Lead in high me	10.365	mg	975071	1854
Soft solder				supplier	solder	Silver (Ag)	7440-22-4		0.159	mg	14958	28
Soft solder				supplier	solder	Tin (Sn)	7440-31-5		0.106	mg	9972	19
Bonding wire	Precious metals	1.333		supplier	wire	Gold (Au)	7440-57-5		0.375	mg	281320	67
Bonding wire				supplier	wire	Aluminium (Al)	7429-90-5		0.958	mg	718680	171
encapsulation	Other inorganic materials	2452.229	mg	supplier	mold compound	Silica, vitreous	60676-86-0		1765.605	mg	720000	315738
encapsulation				supplier	mold compound	Epoxy Cresol Novolak	29690-82-2		416.879	mg	170000	74549
encapsulation				supplier	mold compound	Phenol resin	9003-35-4		176.56	mg	72000	31574
encapsulation				JIG table B	mold compound	Brominated epoxy resin	40039-93-8		36.784	mg	15000	6578
encapsulation				supplier	mold compound	Carbon black	1333-86-4		7.357	mg	3000	1316
encapsulation				JIG table B	mold compound	Antimony Trioxide	1309-64-4		49.044	mg	20000	8770
connections coating	Solder	21.97	mg	supplier	solder alloy	Tin (Sn)	7440-31-5		21.97	mg	1000000	3929