



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 *	2015-10-05
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

While STMicroelectronics has endeavored to provide information which is accurate and up to date, this document and its contents are provided on a strict 'as is' and 'as available' basis. STMicroelectronics disclaims all warranties, express or implied related to this document and its contents, including but not limited to implied warranties of completeness, truth, accuracy, merchantability, fitness for a particular purpose and non-infringement. ST shall have no responsibility and assumes no liability for any cost, loss or damage of any kind which could arise, directly or indirectly, from the use or inability to use this document and/or its contents.

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
	SAVS*T45N3GC	A	Z45A	2015-10-05
Amount	UoM	Unit type	ST ECOPACK Grade	
4480.00	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		
NAC	Tin (Sn), matte	Copper Alloy		

Package Designator	Size	Nbr of instances	Shape	
SIP	15.3X12.63X4.5	3	Through-hole	
Comment	Package:TOP3 ISOL. MD valid for CPs BTW69-1000RG - BTW69-1200RG - BTW69-200RG - BTW69-600RG - BTW69-800RG			

QueryList : ROHS directive 2011/65/EU _ July 2011	
Query	Response
1 - Product(s) meets EU RoHS requirement without any exemptions	false
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)	true
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
7a	Lead in high melting temperature type solders (i.e. lead- based alloys containing 85 % by weight or more lead)
7c-I	Electrical and electronic components containing lead in a glass or ceramic other than dielectric ceramic in capacitors, e.g. piezoelectronic devices, or in a glass or ceramic matrix compound

QueryList : REACH-15th June 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	SAVS*T45N3GC					
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	34.301	mg	supplier	die	Silicon (Si)	7440-21-3		30.065	mg	876501	6711
				supplier	metallization	Nickel (Ni)	7440-02-0		1.613	mg	47026	360
				supplier	metallization	Gold (Au)	7440-57-5		0.161	mg	4694	36
				supplier	back side metallization	Gold (Au)	7440-57-5		0.029	mg	845	6
				supplier	back side metallization	Nickel (Ni)	7440-02-0		0.613	mg	17872	137
				supplier	glass coating	Glass : Aluminium Oxide	1344-28-1		0.182	mg	5306	41
Leadframe	Copper & its alloys	2681.147	mg	JIG - R	glass coating	Lead-Borate Glass	65997-18-4	7c-I-Electrical and e	1.638	mg	47755	366
				supplier	alloy	Copper (Cu)	7440-50-8		2673.338	mg	997087	596727
				supplier	alloy	Iron (Fe)	7439-89-6		1.231	mg	459	275
				supplier	alloy	Iron Phosphide (FeP)	26508-33-8		2.249	mg	839	502
				supplier	metallization	Nickel (Ni)	7440-02-0		4.329	mg	1615	966
Soft solder	Solder	26.547	mg	JIG - R	Lead/Lead Compounds	Lead (Pb)	7439-92-1	7a. Lead in high me	24.820	mg	934946	5540
				supplier	Soft solder	Silver (Ag)	7440-22-4		0.399	mg	15030	89
				supplier	Soft solder	Tin (Sn)	7440-31-5		1.328	mg	50024	296
Ceramic	Other inorganic materials	179.798	mg	supplier	Ceramic	Nickel (Ni)	7440-02-0		2.158	mg	12002	482
				supplier	Ceramic	Phosphorus (P)	12185-10-3		0.163	mg	907	36
				supplier	Ceramic	Manganese (Mn)	7439-96-5		7.012	mg	38999	1565
				supplier	Ceramic	Titanium (Ti)	7440-32-6		0.737	mg	4099	165
				supplier	Ceramic	Molybdenum oxide	1313-27-5		8.990	mg	50001	2007
				supplier	Ceramic	Alumina (Al2O3)	1344-28-1		160.738	mg	893992	35879
Encapsulation	Other inorganic materials	1547.086	mg	supplier	mold compound	Silica, vitreous	60676-86-0		1175.786	mg	760000	262452
				supplier	mold compound	Epoxy Cresol Novolak	29690-82-2		157.803	mg	102000	35224
				supplier	mold compound	Phenol resin	9003-35-4		92.825	mg	60000	20720
				supplier	mold compound	Others	Proprietary		77.354	mg	50000	17267
				supplier	mold compound	Metal hydroxide	21645-51-2		30.941	mg	20000	6906
Finishing	Solder	11.121	mg	supplier	mold compound	Carbon black	1333-86-4		12.377	mg	8000	2763
				Supplier	solder alloy	Tin (Sn)	7440-31-5		11.121	mg	1000000	2482