



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 *	2016-12-16
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 Giacobello	Representative Title	ADG 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

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
T1235T-8I	7BVT*128SAL1	A	SH1A	2016-12-16
Amount	UoM	Unit type	ST ECOPACK Grade	
1900.00	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	
Not Applicable ; if coating is used c	Tin (Sn), matte, annealed	Copper Alloy		

Package Designator	Size	Nbr of instances	Shape	
SIP	10,15,5,4,5	3	Through-hole	
Comment	Package: TO 220 I CLIP			

QueryList : RoHS Directive 2011/65/EU-July 2011 – Annex II amended by Directive 2015/863-April 2015	
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)
7c-1	Electrical and electronic components containing lead in a glass or ceramic other than dielectric ceramic in capacitors, e.g. piezoelectric devi

QueryList : REACH-20th June 2016				
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	7BVT*1285AL1					
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	5.726	mg	supplier	die	Silicon (Si)	7440-21-3		5.053	mg	882466	2659
die				supplier	metallization	Aluminium (Al)	7429-90-5		0.046	mg	8034	24
die				supplier	metallization	Nickel (Ni)	7440-02-0		0.064	mg	11177	34
die				supplier	metallization	Gold (Au)	7440-57-5		0.014	mg	2445	7
die				supplier	passivation	Alumina	1344-28-1		0.041	mg	7160	22
die				supplier	passivation	Lead silicate Glass	65997-18-4	7c-1-Electrical and e	0.365	mg	63744	192
die				supplier	back side metallization	Gold (Au)	7440-57-5		0.006	mg	1048	3
die				supplier	back side metallization	Nickel (Ni)	7440-02-0		0.137	mg	23926	72
Leadframe	Copper & its alloys	1614.459	mg	supplier	alloy	Copper (Cu)	7440-50-8		1609.061	mg	996656	846874
Leadframe				supplier	alloy	iron (Fe)	7439-89-6		0.741	mg	459	390
Leadframe				supplier	alloy	Iron Phosphide (FeP)	26508-33-8		1.353	mg	838	712
Leadframe				supplier	metallization	Nickel (Ni)	7440-02-0		3.304	mg	2047	1739
Soft solder	Solder	2.975	mg	JIG R	solder	Lead (Pb)	7439-92-1	7a-Lead in high me	2.752	mg	925042	1448
Soft solder				supplier	solder	Silver (Ag)	7440-22-4		0.149	mg	50084	78
Soft solder				supplier	solder	Tin (Sn)	7440-31-5		0.074	mg	24874	39
Soft solder -2	Solder	2.798	mg	JIG R	solder	Lead (Pb)	7439-92-1	7a-Lead in high me	2.378	mg	849893	1252
Soft solder -2				supplier	solder	Antimony (Sb)	7440-36-0		0.28	mg	100071	147
Soft solder -2				supplier	solder	Tin (Sn)	7440-31-5		0.14	mg	50036	74
Bonding wire	Other inorganic materials	31.625	mg	supplier	Slug + Trigger	Copper (Cu)	7440-50-8		31.625	mg	1000000	16645
encapsulation	Other inorganic materials	146.903	mg	supplier	mold compound	Silica, vitreous	60676-86-0		118.991	mg	809997	62627
encapsulation				supplier	mold compound	Phenol resin	9003-35-4		8.814	mg	59999	4639
encapsulation				supplier	mold compound	Carbon black	1333-86-4		1.176	mg	8005	619
encapsulation				supplier	mold compound	Epoxy Cresol Novolak	29690-82-2		14.984	mg	101999	7886
encapsulation				supplier	mold compound	Metal hydroxide	Proprietary		2.938	mg	20000	1546
connections coating	Solder	6.314	mg	supplier	solder alloy	Tin (Sn)	7440-31-5		6.314	mg	1000000	3323
subelement	Ceramics / Glass	89.2	mg	supplier	Ceramic isolator	Nickel (Ni)	7440-02-0		1.07	mg	11996	563
subelement				supplier	Ceramic isolator	Phosphorus (P)	12185-10-3		0.08	mg	897	42
subelement				supplier	Ceramic isolator	Manganese (Mn)	7439-96-5		3.479	mg	39002	1831
subelement				supplier	Ceramic isolator	Titanium (Ti)	7440-32-6		0.366	mg	4103	193
subelement				supplier	Ceramic isolator	Molybdenum oxide	1313-27-5		4.46	mg	50000	2347
subelement				supplier	Ceramic isolator	Alumina (Al2O3)	1344-28-1		79.745	mg	894002	41971