



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 *	2016-06-06
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 *	Emilio Castelli	Representative Title	ADG 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/online_tech_support.html		

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
VND830SPTR-E	LBK1*VN83ACB	A	BO2A	2016-06-06
Amount	UoM	Unit type	ST ECOPACK Grade	
1130.50	mg	Each	ECOPACK® 1	

Manufacturing information				
J-STD-020 MSL Rating	Classification Temp	Nbr of Reflow Cycles		 life.augmented
3	250	3		
bulk Solder Termination	Terminal Plating	Terminal Base Alloy	Comment	
NAC	Tin (Sn), matte, annealed	Copper Alloy		

Package Designator	Size	Nbr of instances	Shape	
CHP	9.5x7.4x3.5	10	flat	
Comment	PowerSO 10			

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 '7a' exemption (other selected exemptions may apply)	true
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-17th Dec 2015				
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	LBK1*VNB3ACB					
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	8.516	mg	supplier	die	Silicon (Si)	7440-21-3		8.130	mg	954674	7192
Die				supplier	metallization	Aluminium (Al)	7429-90-5		0.023	mg	2701	20
Die				supplier	metallization	Titanium (Ti)	7440-32-6		0.044	mg	5167	39
Die				supplier	passivation	Silicon Nitride (SiN)	68034-42-4		0.017	mg	1996	15
Die				supplier	passivation	Silicon Oxide(SiO2)	7631-86-9		0.142	mg	16674	126
Die				supplier	back side metallization	Titanium (Ti)	7440-32-6		0.004	mg	470	4
Die				supplier	back side metallization	Gold (Au)	7440-57-5		0.012	mg	1409	11
Die				supplier	back side metallization	Nickel (Ni)	7440-02-0		0.055	mg	6458	49
Die				supplier	polymer die coating	PIX1 Gamima-butylolactone	96-48-0		0.089	mg	10451	79
Leadframe	Copper & its alloys	221.721	mg	supplier	alloy	Copper (Cu)	7440-50-8		221.116	mg	997271	195591
Leadframe				supplier	alloy	Iron (Fe)	7439-89-6		0.102	mg	460	90
Leadframe				supplier	alloy	Iron Phosphide (FeP)	26508-33-8		0.186	mg	839	165
Leadframe				supplier	metallization	Nickel (Ni)	7440-02-0		0.107	mg	483	95
Leadframe				supplier	metallization	Silver (Ag)	7440-22-4		0.210	mg	947	186
Die attach		6.077	mg	JIG - R	Soft Soder	Lead (Pb)	7439-92-1	7a-Lead in high mel	5.803	mg	954912	5133
Die attach				supplier	Soft Soder	Silver (Ag)	7440-22-4		0.152	mg	25012	134
Die attach				supplier	Soft Soder	Tin (Sn)	7440-31-5		0.122	mg	20076	108
Bonding wire		1.182		supplier	wire	Gold (Au)	7440-57-5		0.253	mg	214044	224
Bonding wire				supplier	wire	Aluminium (Al)	7429-90-5		0.929	mg	785956	822
encapsulation		889.720	mg	supplier	mold compound	Silica, vitreous	60676-86-0		707.328	mg	795001	625677
encapsulation				supplier	mold compound	Epoxy Cresol Novolak	29690-82-2		74.736	mg	83999	66109
encapsulation				supplier	mold compound	Phenol resin	9003-35-4		44.486	mg	50000	39351
encapsulation				supplier	mold compound	Brominated Epoxy Resin	40039-93-8		10.677	mg	12000	9444
encapsulation				JIG - I	mold compound	Brominated Epoxy Resin	68541-56-0		13.346	mg	15000	11805
encapsulation				supplier	mold compound	Bismuth Trioxide	1304-76-3		8.897	mg	10000	7870
encapsulation				supplier	mold compound	Bismuth nitrate	10361-44-1		8.897	mg	10000	7870
encapsulation				supplier	mold compound	carbon black	1333-86-4		3.559	mg	4000	3148
encapsulation				supplier	mold compound	Antimony Trioxide	1309-64-4		17.794	mg	20000	15740
connections coating	Solder	3.284	mg	supplier	solder alloy	Tin (Sn)	7440-31-5		3.284	mg	1000000	2905