



Materials Declaration Form

IPC Form Type *	1752 Distribute	Version	2
Sectionals *	Material Info Manufacturing Info	Subsectionals *	A-D * : Required Field

Supplier Information			
Company Name *	STMicroelectronics	Response Date *	2018-12-17
Company Unique ID	NL 008751171B01		
Contact Name *	Refer to Supplier Comment section		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 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

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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
	AZDP*Z05QB2Y	A	3068	2018-12-17
Amount	UoM	Unit type	ST ECOPACK Grade	
320.00	mg	Each	ECOPACK1	
	Comment	ECOPACK® or ECOPACK® 1 is STMicroelectronics trade name for ROHS compliant devices		

Manufacturing information				
J-STD-020 MSL Rating	Classification Temp	Nbr of Reflow Cycles	 life.augmented	
1	260	3		
bulk Solder Termination	Terminal Plating	Terminal Base Alloy	Comment	
NA	Tin (Sn), matte	Copper Alloy		

Package Designator	Size	Nbr of instances	Shape	
SIP	6.5-6.1-2.3	3	GULL WING	
Comment	Package: TO 252 DPAK - MDF valid for CPs: STPS15L45CBY-TR and STPS15L45CB-TR			

QueryList : RoHS Directive 2011/65/EU-July 2011 – Annex II amended by Directive 2015/863-March 2015	
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
Exemption Id.	Description
7a	Lead in high melting temperature type solders (i.e. lead- based alloys containing 85 % by weight or more lead)

QueryList : ELV directive : 2000/53/EC amended 2017/2096 _November 2017	
Query	Response
1 - Product(s) meets EU ELV requirements without any exemptions	FALSE
2 - Product(s) meets EU RoHS requirements by application of the selected exemption(s)	TRUE
Exemption Id.	Description
8e	Lead in high melting temperature type solders (i.e. lead-based alloys containing 85 % by weight or more lead)

QueryList : California Prop65 list, dated 25th May 2018			
Query			Response
1 - The product does not contain identified substance from California Prop 65 List, no exposure to consumers is foreseen			FALSE
2 - The product is containing below substance(s) from California Prop 65 List, no exposure to consumers is foreseen			TRUE
Substance	amount in product (mg)	Application	ppm in product
Nickel	0.16	Die - Leadframe	509
Lead	5.81	Soft solder	18153
Antimony trioxide	1.69	Encapsulation	5281

QueryList : REACH-27th June 2018				
Query				Response
1 - Product(s) does not contain REACH Substances Of Very High Concern above the limits per the definition within REACH				FALSE
CategoryLevel_Name	CategoryLevel_Threshold	amount in product (mg)	Application	ppm in product
Lead	1000 ppm	5.809	Soft solder	18153
2 - Product(s) does not contain REACH Substances Of Very High Concern in any Embedded article nor Homogeneous Material above the limits per the definition within REACH				FALSE
CategoryLevel_Name	CategoryLevel_Threshold	Amount in Embedded Article / Homogeneous Material (mg)	Application - Article / Homogeneous Material	ppm in Article /Homogeneous Material
Lead	1000 ppm	5.809	Soft solder	954956

Material Composition Declaration : note : Substance present with less 0.001mg will not be declared in this document						Mfr Item Name	AZDP*Z05QB2Y					
Homogeneous Material	Material Group	Mass	UoM	Level	Substance Category	Substance	CAS	Exempt	Mass	UoM	Concentration in homogeneous material (ppm)	Concentration in product (ppm)
Die	M-011 Other inorganic materials	6.700	mg	supplier	die	Silicon (Si)	7440-21-3		6.303	mg	940746	19697
				supplier	metallization	Aluminium (Al)	7429-90-5		0.261	mg	38955	816
				supplier	metallization	Nickel (Ni)	7440-02-0		0.028	mg	4179	88
				supplier	metallization	Titanium (Ti)	7440-32-6		0.006	mg	896	19
				supplier	metallization	Tungsten (W)	7440-33-7		0.009	mg	1343	28
				supplier	Passivation	Silicon Oxide	7631-86-9		0.038	mg	5672	119
				supplier	back side metallization	Titanium (Ti)	7440-32-6		0.003	mg	448	9
				supplier	back side metallization	Gold (Au)	7440-57-5		0.009	mg	1343	28
				supplier	back side metallization	Nickel (Ni)	7440-02-0		0.043	mg	6418	134
				supplier	alloy	Copper (Cu)	7440-50-8		164.729	mg	998097	514778
				supplier	alloy	Iron (Fe)	7439-89-6		0.165	mg	1000	516
				supplier	alloy	Iron Phosphide (FeP)	26508-33-8		0.050	mg	304	156
Leadframe	M-004 Copper and its alloys	165.043	mg	supplier	metallization	Nickel (Ni)	7440-02-0		0.092	mg	557	287
				supplier	metallization	Phosphorus (P)	7723-14-0		0.007	mg	42	22
				supplier	solder	Lead (Pb)	7439-92-1	7a-Lead in high mel	5.809	mg	954956	18153
				supplier	solder	Silver (Ag)	7440-22-4		0.152	mg	24988	475
Soft solder	Solder	6.083	mg	supplier	solder	Tin (Sn)	7440-31-5		0.122	mg	20056	381
				supplier	wire	Aluminium (Al)	7429-90-5		0.739	mg	1000000	2309
				supplier	metallization	Silica, vitreous	60676-86-0		113.154	mg	805998	353606
Bonding wires	M-003 Aluminum and its alloys	0.739	mg	supplier	mold compound	Epoxy Cresol Novolak	29690-82-2		9.827	mg	69998	30709
				supplier	mold compound	Phenol resin	9003-35-4		5.616	mg	40003	17550
				supplier	mold compound	Biphenyl epoxy resin	85954-11-6		8.423	mg	59997	26322
				supplier	mold compound	Antimony Trioxide	1309-64-4		1.685	mg	12002	5266
				supplier	mold compound	Brominated Epoxy Resin	40039-93-8		0.983	mg	7002	3072
				supplier	mold compound	Carbon black	1333-86-4		0.702	mg	5000	2194
				supplier	solder alloy	Tin (Sn)	7440-31-5		1.045	mg	1000000	3266
				supplier	solder alloy	Tin (Sn)	7440-31-5		1.045	mg	1000000	3266
Encapsulation	M-011 Other inorganic materials	140.390	mg	supplier	mold compound	Silica, vitreous	60676-86-0		113.154	mg	805998	353606
				supplier	mold compound	Epoxy Cresol Novolak	29690-82-2		9.827	mg	69998	30709
connections coating	Solder	1.045	mg	supplier	mold compound	Phenol resin	9003-35-4		5.616	mg	40003	17550
				supplier	mold compound	Biphenyl epoxy resin	85954-11-6		8.423	mg	59997	26322