



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 *	2018-12-19
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 Giacopello	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
STB34N50DM2AG	T2D2*FQ57A62	A	3068	2018-12-19
Amount	UoM	Unit type	ST ECOPACK Grade	
1380.00	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	245	3		
bulk Solder Termination	Terminal Plating	Terminal Base Alloy	Comment	
NA	Tin (Sn), matte	Copper Alloy		

Package Designator	Size	Nbr of instances	Shape	
SIP	10.2-9.15-4.5	2	gull wing	
Comment	D2PAK			

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	0.19	Die - Leadframe	139
Lead	14.81	Soft solder	10735
Antimony trioxide	6.77	Encapsulation	4906

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	14.814	Soft solder	10735
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	14.814	Soft solder	955003

Material Composition Declaration : note : Substance present with less 0.001mg will not be declared in this document						Mfr Item Name	T2D2*FQ57A62					
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	17.217	mg	supplier	die	Silicon (Si)	7440-21-3		16.522	mg	959633	11972
				supplier	metallization	Aluminium (Al)	7429-90-5		0.334	mg	19399	242
				supplier	Passivation	Silicon Nitride	12033-89-5		0.079	mg	4588	57
				supplier	Passivation	Silicon Oxide	7631-86-9		0.118	mg	6854	86
				supplier	back side metallization	Titanium (Ti)	7440-32-6		0.008	mg	466	6
				supplier	back side metallization	Nickel (Ni)	7440-02-0		0.115	mg	6679	82
Leadframe	M-004 Copper and its alloys	778.633	mg	supplier	back side metallization	Silver (Ag)	7440-22-4		0.041	mg	2381	30
				supplier	alloy	Copper (Cu)	7440-50-8		777.537	mg	998592	563433
				supplier	alloy	Iron (Fe)	7439-89-6		0.779	mg	1000	564
				supplier	alloy	Iron Phosphide (FeP)	26508-33-8		0.234	mg	301	170
				supplier	metallization	Nickel (Ni)	7440-02-0		0.077	mg	99	56
				supplier	metallization	Phosphorus (P)	7723-14-0		0.006	mg	8	4
Soft solder	Solder	15.512	mg	JIG - R	solder	Lead (Pb)	7439-92-1	7a-Lead in high mel	14.814	mg	955003	10735
				supplier	solder	Silver (Ag)	7440-22-4		0.388	mg	25012	281
				supplier	solder	Tin (Sn)	7440-31-5		0.310	mg	19985	225
Bonding wires	M-003 Aluminum and its alloys	1.710	mg	supplier	wire	Aluminium (Al)	7429-90-5		1.703	mg	995906	1234
				supplier	wire	Magnesium (Mg)	7439-95-4		0.007	mg	4094	5
Encapsulation	M-011 Other inorganic materials	564.439	mg	supplier	mold compound	Silica, vitreous	60676-86-0		454.938	mg	806000	329665
				supplier	mold compound	Epoxy Cresol Novolak	29690-82-2		39.511	mg	70000	28631
				supplier	mold compound	Phenol resin	9003-35-4		22.578	mg	40001	16361
				supplier	mold compound	Biphenyl epoxy resin	85954-11-6		33.866	mg	59999	24541
				supplier	mold compound	Antimony Trioxide	1309-64-4		6.773	mg	12000	4908
				supplier	mold compound	Brominated Epoxy Resin	40039-93-8		3.951	mg	7000	2863
connections coating	Solder	2.489	mg	supplier	mold compound	Carbon black	1333-86-4		2.822	mg	5000	2045
				supplier	solder alloy	Tin (Sn)	7440-31-5		2.489	mg	1000000	1804