

## **Materials Declaration Form**

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

Supplier Information						
Company Name *	STMicroelectronics	Response Date *	2022-02-17			
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 giacopello	Representative Title	ADG Material 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/web/en/support/support.htr	nl				

## **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			
BTA26-600BWRG	QBVS*A20C26Q	А	993J	2022-02-17			
	Amount	UoM	Unit type	ST ECOPACK Grade			
	4757.65	mg	Each	ECOPACK® 2			
	ECOPACK® 2 is STMicroelectronics trade name for ROHS compliant device without Brominated and Chlorinated compound (900ppm) and without Antimony oxide flame retardant ( in each organic material)						

Manufacturing information						
J-STD-020 MSL Rating	Classification Temp	Nbr of Reflow Cycles				
Not Applicable	Not Applicable	Not Applicable		life.augmented		
Bulk Solder Termination	Terminal Plating	Terminal Base Alloy	Comment			
Not Applicable	Tin (Sn), matte, annealed	Copper Alloy	DM00826991	mordaginomod		

Package Designator	Package Size	Nbr of instances	Shape	
SIP	15.30,12.63,4.50	3	through-hole	
Comment	TOP3 ISOL. MDF valid for CPs: BTA26-600BWRG,B	TA26-800BWRG,BTA26-800CWRG		

QueryList: RoHS Directive 2011/65/EU- 8 June 2011 – Annex II amended by Delegated Directive 2015/863 - 31 March 2015						
	Query Response					
1 - Product(s) meets EU RoHS requiremen	false					
2 - Product(s) meets EU RoHS requiremen	- 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)					
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						
Exemption Id.	Description					
7a	7a Lead in high melting temperature type solders (i.e. lead-based alloys containing 85 % by weight or more lead)					
Tecl 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 ceramic matrix compound						

Query Response				
- 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				
8(e) 8(e) - Lead in high melting temperature type solders (i.e. lead-based alloys containing 85 % by weight or more lead)				
10(a) - Electrical and electronic components which contain lead in a glass or ceramic, in a glass or ceramic matrix compound, in a glass-ceramic material, or in a glass-ceramic matrix compound.  This exemption does not cover the use of lead in: — glass in bulbs and glaze of spark plugs, — dielectric ceramic materials of components listed under 10(b), 10(c) and 10(d)				

QueryList : California Prop65 list, dated 17th Dec 2021					
Query	Response				
1 - The product does not contain identified substance from California Prop 65 List, no exposure t	false				
2 - The product is containing below substance(s) from California Prop 65 List, no exposure to cor	true				
Substance	ppm in product				
Nickel	1.715	die - leadframe - heatsink	360		
Lead	28585				
Lead-Borate Glass	3.064	die	644		

	Query			Response	
1 - Product(s) requires marking for the presence of restricted substances and must be marked with an Environmental Protection Use Period under China's Measures for Administration of the control of pollution by Electronic Information Products					
2 - Product(s) is eligible for marking with	false				
Hasardous substance					
Lead (Pb)	Cadmium (Cd)	Mercury (Hg)	Hexavalent Chromium (Cr VI)	PBB & PBDE	
х	0	0	0	0	
Die,Soft solder,Soft solder 2,solder paste					
Homogeneous Material(s) containing Lead					

QueryList: REACH-17 Jan 2022	queryList : REACH-17 Jan 2022					
	Response					
1 - Product(s) does not contain REACH Sub-	1 - Product(s) does not contain REACH Substances Of Very High Concern above the limits per the definition within REACH					
CategoryLevel_Name	CategoryLevel_Threshold	amount in product (mg)	Application	ppm in product		
Lead	1000 ppm	402.44	Soft solder, Soft solder 2, solder paste	84588		
2 - Product(s) does not contain REACH St REACH	abstances Of Very High Concern in any Embedded	article nor Homogeneous Material abo	we the limits per the definition within	false		
CategoryLevel_Name	CategoryLevel_Name CategoryLevel_Threshold Amount in Embedded Article / Homogeneous Material (mg) Material (mg) Material					
Lead	1000 ppm	115.03	Soft solder	935006		
Lead	1000 ppm	7.153	Soft solder 2	934910		
Lead	1000 ppm	11.964	solder paste	920308		

QueryList : Responsible metals sourcing				
Query	Response			
The component is containing at least one of the following metals : Cobalt , Gold , Tantalum , Tin , Tungsten.	true			
The following metals are present is the component :	Gold, Tin,			
This product is in the scope of the responsible metals sourcing, its compliance is covered by our company processes .				

QueryList : Korea Chemical Control Act_ 27 Dec 2017 update						
	Response					
The Product does contain at least one of	false					

China GB 33372-2020 Limit standard for volatile organic compounds content in adhesives - 4 March 2020 application date 1st December 2020						
Query	Response					
The product contains adhesives identified under GB 33372	false					

Stockholm Convention Persistent Organic Pollutants							
Query	Response						
Product is compliant with Stockholm Convention Persistent Organic Pollutants Annex I	true						

Material Composition Declaration: note: Substance present with less 0.001mg will not be declared in this document					Mfr Item Name	Q8VS*A20C26Q						
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	17.888	mg	supplier	die	Silicon(Si)	7440-21-3		13.980	mg	781530	2936
				supplier	metallisation	Gold(Au)	7440-57-5		0.071	mg	3969	15
				supplier	metallisation	Nickel(Ni)	7440-02-0		0.660	mg	36896	139
				supplier	passivation	Silicon oxide	7631-86-9		0.113	mg	6317	24
				JIG-R & California 65	glass	Lead-BorateGlass	65997-18-4	7c-I-Electrical and electronic	3.064	mg	171288	644
leadframe	M-004 Copper and its alloys	681.701	mg	supplier	alloy	Copper (Cu)	7440-50-8		680.609	mg	998398	143056
				supplier	alloy	Iron(Fe)	7439-89-6		0.682	mg	1000	143
				supplier	metallization	Nickel (Ni)	7440-02-0		0.205	mg	301	43
				supplier	metallization	Phosphorus (P)	7723-14-0		0.205	mg	301	43
Soft solder	Solder	123.027	mg	SVHC	solder	Lead(Pb)	7439-92-1	7a-Lead in high melting temper	115.031	mg	935006	24178
				supplier	solder	Tin(Sn)	7440-31-5		6.151	mg	49997	1293
				supplier	solder	Silver(Ag)	7440-22-4		1.845	mg	14997	388
Soft solder 2	Solder	7.651	mg	SVHC	solder	Lead(Pb)	7439-92-1	7a-Lead in high melting temper	7.153	mg	934910	1503
				supplier	solder	Tin(Sn)	7440-31-5		0.383	mg	50059	81
				supplier	solder	Silver(Ag)	7440-22-4		0.115	mg	15031	24
Encapsulation	M-011 Other inorganic materials	982.987	mg	supplier	mold compound	Silica vitreous	60676-86-0		729.373	mg	741997	153305
				supplier	mold compound	Phenol resin	9003-35-4		49.150	mg	50001	10331
				supplier	mold compound	Epoxy Cresol Novolac	29690-82-2		108.130	mg	110001	22728
				supplier	mold compound	other	proprietary		88.470	mg	90001	18595
				supplier	mold compound	Carbon black	1333-86-4		7.864	mg	8000	1653
solder paste	Solder	13.000	mg	SVHC	solder	Lead(Pb)	7439-92-1		11.964	mg	920308	2515
				supplier	solder	Silver(Ag)	7440-22-4		0.324	mg	24923	68
				supplier	solder	Tin(Sn)	7440-31-5		0.647	mg	49769	136
				supplier	solder	Flux residue	proprietary		0.065	mg	5000	14
Connections coating	Solder	10.975	mg	supplier	solder alloy	Tin (Sn)	7440-31-5		10.975	mg	1000000	2307
Connection 1	M-004 Copper and its alloys	8.210	mg	supplier	alloy	Copper(Cu)	7440-50-8		8.210	mg	1000000	1726
Coonection 2	M-004 Copper and its alloys	66.080	mg	supplier	alloy	Copper(Cu)	7440-50-8		66.047	mg	999501	13882
				supplier	alloy	Copper Posphorous	12517-41-8		0.033	mg	499	7
Heatsink	M-004 Copper and its alloys	2656.630	mg	supplier	alloy	Copper(Cu)	7440-50-8		2652.379	mg	998400	557498
				supplier	alloy	Iron(Fe)	7439-89-6		2.657	mg	1000	558
				supplier	metallization	Phosphorus(P)	7723-14-0		0.797	mg	300	168
				supplier	metallization	Nickel(Ni)	7440-02-0		0.797	mg	300	168
Ceramic base	M-010 Ceramics / glass	189.501	mg	supplier	Ceramic	Aluminium oxide (Al 2 0 3 )	1344-28-1		179.820	mg	948913	37796
				supplier	Ceramic	Silicon oxide (SiO2)	7631-86-9		5.679	mg	29968	1194
				supplier	Ceramic	Magnesium Oxide (MgO)	309-48-4		3.786	mg	19979	796
				supplier	Ceramic	Molybdenum (Mo)	7439-98-7		0.154	mg	813	32
				supplier	Ceramic	(Mo-Mn) Manganese (Mn)	7439-96-5		0.008	mg	42	2
				supplier	metallzation	Nickel (Ni)	7440-02-0		0.053	mg	280	11
				supplier	metallzation	Phosphorus (P)	7723-14-0		0.001	mg	5	0