



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 *	2020-02-12
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 *	Floriana SAN BIAGIO	Representative Title	AMS 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.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
LIS2DE12TR-LIS2DH12TR	22DC*MV1EBFA	B	MA1A	2020-02-12
	Amount	UoM	Unit type	ST ECOPACK Grade
	8.0	mg	Each	ECOPACK® 2

Manufacturing information			
J-STD-020 MSL Rating	Classification Temp	Nbr of Reflow Cycles	
3	260	3	
bulk Solder Termination	Terminal Plating	Terminal Base Alloy	Comment
	Nickel/Palladium/Gold (Ni/Pd/Au)	Copper Alloy	0



Package Designator	Size	Nbr of instances	Shape
LGA	2 x 2	12	flat
Comment	A0K6 VFLGA 2X2X1 12LD PITCH 0.5MM		

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
7c-I	7c-I-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 or ceramic matrix compound

QueryList : ELV directive : 2000/53/EC amended 2017/2096 _November 2017	
Query	Response
1 - Product(s) meets EU ELV requirement without any exemptions	FALSE
2 - Product(s) meets EU ELV requirements by application of the selected exemption(s)	TRUE
Exemption Id.	Description
10a	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 3rd January 2020			
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	0.044	substrate	5500
Lead	0.103	die	12813
Lead-Borate Glass	0.170	die	21250

QueryList : REACH-16th January 2020				
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
Morpholine derivative	1000	0.022	Substrate	2750
;				
2 - Product(s) does not contain REACH Substances Of Very High Concern in any Homogeneous Material above the limits per the definition within REACH				FALSE
CategoryLevel_Name	CategoryLevel_Threshold	Amount in Homogeneous Material (mg)	Application - Homogeneous Material	ppm in Homogeneous Material
Morpholine derivative	1000	0.022	Substrate	10526
;				

Material Composition Declaration						Mfr Item Name	22DC/MV1EBFA		7.99%		1000001.0	999875.0
Homogeneous Material	Material Group	Mass	UoM	Level	Substance Category	Substance	CAS	Exempt	Mass	UoM	Concentration in homogeneous material (ppm)	Concentration in product (ppm)
Dies	M-011 Other inorganic materials	3.214	mg	supplier	die	Silicon(Si)	7440-21-3		2.980	mg	927194	372500
				supplier	metallisation	Aluminum(Al)	7429-90-5		0.004	mg	1245	500
				supplier	metallisation	Copper(Cu)	7440-50-8		0.016	mg	4978	2000
				supplier	metallisation	Tantalum(Ta)	7440-25-7		0.003	mg	933	375
				supplier	metallisation	Titanium(Ti)	7440-32-6		0.002	mg	622	250
				supplier	Passivation	Silicon Nitride (SiN)	12033-89-5		0.006	mg	1867	750
				supplier	passivation	Silicon Oxide	7631-86-9		0.033	mg	10268	4125
				JIG-R & California 65	glass	Lead-Borate Glass	65997-18-4	7c-I-Electrical and elect	0.170	mg	52894	21250
				supplier	laminiate	Fiber glass	65997-17-3		0.325	mg	155502	40625
				supplier	laminiate	Bismaleimide polymer	105391-33-1		0.109	mg	52153	13625
				supplier	laminiate	Triazine (T)	25722-66-1		0.109	mg	52153	13625
supplier	laminiate	Thermosetting resin	54208-63-8		0.183	mg	87560	22875				
supplier	laminiate	Aluminium hydroxide	21645-51-2		0.007	mg	3349	875				
supplier	laminiate	Calcium sulfate	7778-18-9		0.004	mg	1914	500				
supplier	laminiate	Zinc hydroxide	20427-58-1		0.002	mg	957	250				
supplier	laminiate	Barium sulfate	7727-43-7		0.143	mg	68421	17875				
supplier	laminiate	Bisphenol F type epoxy resin	9003-36-5		0.130	mg	62201	16250				
supplier	laminiate	polymerized Biphenyl resin	85954-11-6		0.054	mg	25837	6750				
supplier	laminiate	Talc containing no asbestiform fibers	14807-96-6		0.036	mg	17225	4500				
supplier	laminiate	Methoxymethylethoxy propanol	34590-94-8		0.031	mg	14833	3875				
supplier	laminiate	Amorphous silica	7631-86-9		0.027	mg	12919	3375				
SVHC				laminiate	Morpholine derivative	119313-12-1		0.022	mg	10526	2750	
supplier				laminiate	Naphta	64742-94-5		0.004	mg	1914	500	
supplier	M-004 Copper and its alloys			metallisation	Copper(Cu)	7440-50-8		0.852	mg	407656	106500	
supplier	M-006 Nickel and its alloys			metallisation	Nickel(Ni)	7440-02-0		0.044	mg	21053	5500	
supplier				metallisation	Gold(Au)	7440-57-5		0.008	mg	3828	1000	
Die attach	M-015 Other organic materials	0.092	mg	supplier	tape	Epoxy resin	25068-38-6		0.058	mg	630435	7250
				supplier	tape	Polypropylene	9003-07-0		0.002	mg	21739	250
				supplier	tape	epoxy resin	29690-82-2		0.009	mg	97826	1125
				supplier	tape	Propenoate polymer	538311-13-6		0.018	mg	195652	2250
				supplier	tape	Bisphenol A diglycidyl ether	1675-54-3		0.005	mg	54348	625
				supplier	tape	Epoxy resin	25068-38-6		0.038	mg	633333	4750
Die attach 2	M-015 Other organic materials	0.060	mg	supplier	tape	Polypropylene	9003-07-0		0.001	mg	16667	125
				supplier	tape	epoxy resin	29690-82-2		0.006	mg	100000	750
				supplier	tape	Propenoate polymer	538311-13-6		0.012	mg	200000	1500
				supplier	tape	Bisphenol A diglycidyl ether	1675-54-3		0.003	mg	50000	375
				supplier	wire	Gold(Au)	7440-57-5		0.036	mg	1000000	4500
Bonding wire encapsulation	M-008 Precious metals	0.036	mg	supplier	wire	Gold(Au)	7440-57-5		0.036	mg	1000000	4500
	M-015 Other organic materials	2.507	mg	supplier	mold compound	Silica vitreous	60676-86-0		2.171	mg	865975	271375
				supplier	mold compound	Biphenyl epoxy resin	85954-11-6		0.100	mg	39888	12500
				supplier	mold compound	Phenol resin	26834-02-6		0.100	mg	39888	12500
				supplier	mold compound	Epoxyde bisphenol A resin	25068-38-6		0.075	mg	29916	9375
				supplier	mold compound	Aluminium hydroxide	21645-51-2		0.050	mg	19944	6250
				supplier	mold compound	Carbon black	1333-86-4		0.011	mg	4388	1375