




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 *	2018-07-12
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 *	MDG MD CHAMPION	Representative Title	MDG 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	<p>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.</p>

Product				
Mfr Item Number	Mfr Item Name	Version	Mfr Site	Date
STM32H745IIK6	41MR*450XXXV	A	9996	2018-07-12
	Amount	UoM	Unit type	ST ECOPACK Grade
	113.54	mg	Each	ECOPACK® 2
	Comment	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		 life.augmented
3	260	3		
bulk Solder Termination	Terminal Plating	Terminal Base Alloy	Comment	
Not Applicable; if coating is used or other bulk termination	NAC	Copper Alloy		

Package Designator	Size	Nbr of instances	Shape	
BGA	10x10x0.6	244	No lead	
Comment	Package : A0E7 UFBGA 10X10X0.6 176+25 P0.65 8249558			

QueryList : RoHS Directive 2011/65/EU-July 2011 – Annex II amended by Directive 2015/863-April 2015	
Query	Response
1 - Product(s) meets EU RoHS requirement without any exemptions	TRUE
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)	FALSE
4 - Product(s) does not meet EU RoHS requirements and is not under exemptions	FALSE
Exemption Id.	Description

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				TRUE
CategoryLevel_Name	CategoryLevel_Threshold	amount in product (mg)	Application	ppm in product

Material Composition Declaration : note : Substance present with less 0.001mg will not be declared in this document						Mfr Item Name	41MR*450XXXV				6000000.0	999999.6
Homogeneous Material	Material Group	Mass	UoM	Level	Substance Category	Substance	CAS	Exempt	Mass	UoM	Concentration in homogeneous material (ppm)	Concentration in product (ppm)
Die or dies	M-011 Other inorganic materials	4.802	mg	supplier	die	Silicon (Si)	7440-21-3		4.050	mg	845481	35758
				supplier	metallization	Aluminium (Al)	7429-90-5		0.088	mg	18326	775
				supplier	metallization	Copper (Cu)	7440-50-8		0.276	mg	57476	2431
				supplier	passivation	Nickel (Ni)	7440-02-0		0.001	mg	208	9
				supplier	metallization	Tantalum (Ta)	7440-25-7		0.045	mg	9371	396
				supplier	metallization	Titanium (Ti)	7440-32-6		0.008	mg	1666	70
				supplier	metallization	Tungsten (W)	7440-33-7		0.001	mg	208	9
				supplier	Passivation	Silicon Oxide	7631-86-9		0.323	mg	67264	2845
				supplier	CORE	Glass Cloth	65997-17-3		2.821	mg	87620	24842
				supplier	CORE	Copper (Cu)	7440-50-8		7.051	mg	219050	62105
SUBSTRATE (DS7409HGB)	M-011 Other inorganic materials	32.191	mg	supplier	CORE	Epoxy	28906-96-9		0.987	mg	30667	8695
				supplier	CORE	Flame resistant resin	223769-10-6		0.705	mg	21905	6211
				supplier	CORE	Heat resistant resin	25722-66-1		0.705	mg	21905	6211
				supplier	CORE	Silica filler	7631-86-9		1.269	mg	39429	11179
				supplier	CORE	Metal Hydroxide	Proprietary		0.564	mg	17524	4968
				supplier	SOLDERMASK (AUS308)	Morpholine derivative	Proprietary		0.043	mg	1338	379
				supplier	SOLDERMASK (AUS308)	Barium sulfate	7727-43-7		0.345	mg	10707	3036
				supplier	SOLDERMASK (AUS308)	Talc containing no asbestiform fibers	14807-96-6		0.129	mg	4015	1138
				supplier	SOLDERMASK (AUS308)	Dipropylene glycol monomethyl ether	34590-94-8		0.086	mg	2677	759
				supplier	SOLDERMASK (AUS308)	Naphthalene	91-20-3		0.031	mg	964	273
				supplier	CU FOIL	Copper (Cu)	7440-50-8		15.980	mg	496400	140740
				supplier	NI PLATING	Nickel (Ni)	7440-02-0		1.212	mg	37638	10671
				supplier	AU PLATING	Gold (Au)	7440-57-5		0.263	mg	8161	2314
				DIE ATTACH (ATB-130U)	M-011 Other inorganic materials	0.441	mg	supplier	GLUE	Butadiene,acrylonitrile polymer,carboxy-term	68610-41-3	
supplier	GLUE	Phenol-formaldehyde polymer	9003-35-4						0.044	mg	100000	388
supplier	GLUE	Phenol polymer with formaldehyde,glycidyl et	28064-14-4						0.044	mg	100000	388
supplier	GLUE	Dapsone	80-08-0						0.044	mg	100000	388
supplier	GLUE	Reaction product bisphenol-A-(epichlorhydrin	25068-38-6						0.004	mg	10000	39
supplier	GLUE	4,4-Isopropylidenediphenol	80-05-7						0.004	mg	10000	39
supplier	GLUE	Other Substance	Proprietary						0.035	mg	80000	311
BONDING WIRE (Au wire)	M-011 Other inorganic materials	3.489	mg	supplier	BONDING WIRE	Gold (Au)	7440-57-5		3.489	mg	1000000	30727
				supplier	SOLDERBALL	Silver (Ag)	7440-22-4		0.218	mg	35000	1924
SOLDERBALL (Sn96.5Ag3.5)	M-011 Other inorganic materials	6.241	mg	supplier	MOLDING COMPOUND	Silica vitreous	60676-86-0		58.677	mg	885000	516799
				supplier	MOLDING COMPOUND	Epoxy resin	Proprietary		2.678	mg	40000	23585
				supplier	MOLDING COMPOUND	Phenol resin	Proprietary		2.008	mg	30000	17689
				supplier	MOLDING COMPOUND	Carbon black	1333-86-4		0.335	mg	5000	2948
				supplier	MOLDING COMPOUND	Metal hydroxide	Proprietary		2.008	mg	30000	17689
				supplier	MOLDING COMPOUND	Crystalline silica	14808-60-7		0.669	mg	10000	5896