


Product				
Mfr Item Number	Mfr Item Name	Version	Mfr Site	Date
STM32F439IGH6	P9MR*419XXX3	A	9996	27-11-2017
	Amount	UoM	Unit type	ST ECOPACK Grade
	111.00	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	
NAC	Tin/Silver	Copper Alloy		

Package Designator	Size	Nbr of instances	Shape	
BGA	10x10x0.6	176+25	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-12th January 2017				
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	P9MR*419XXX3				5000000.0	999992.0
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	9.292	mg	supplier	die	Silicon (Si)	7440-21-3		8.112	mg	873009	73081
				supplier	metallization	Aluminium (Al)	7429-90-5		0.082	mg	8825	739
				supplier	metallization	Copper (Cu)	7440-50-8		0.536	mg	57684	4829
				supplier	metallization	Cobalt (Co)	7440-48-4		0.002	mg	215	18
				supplier	metallization	Tantalum (Ta)	7440-25-7		0.075	mg	8071	676
				supplier	metallization	Tungsten (W)	7440-33-7		0.241	mg	25936	2171
				supplier	Passivation	Silicon Nitride	12033-89-5		0.063	mg	6780	568
				supplier	Passivation	Silicon Oxide	7631-86-9		0.181	mg	19479	1631
				supplier	Mold compound	Silica, vitreous [Fused Silica]	60676-86-0		47.868	mg	876591	431244
				supplier	Mold compound	Epoxy resins	Proprietary		2.344	mg	42925	21117
Encapsulation	M-011 Other inorganic materials	54.607	mg	supplier	Mold compound	Phenolic resins	Proprietary		1.758	mg	32194	15838
				supplier	Mold compound	Carbon black	1333-86-4		0.293	mg	5366	2640
				supplier	Mold compound	Metal Hydroxide	Proprietary		1.758	mg	32194	15838
				supplier	Mold compound	Other miscellaneous substances	Proprietary		0.586	mg	10731	5279
				supplier	Core	organic resin	Proprietary		2.829	mg	70373	25486
				supplier	Core	Silicon dioxide	7631-86-9		1.599	mg	39776	14405
				supplier	Core	Other inorganic filler	Proprietary		1.599	mg	39776	14405
				supplier	Core	Glass fiber	65997-17-3		6.273	mg	156045	56514
				supplier	Solder mask	Organic resin	Proprietary		3.705	mg	92164	33378
				supplier	Solder mask	Inorganic filler	Proprietary		1.995	mg	49627	17973
Substrate	M-011 Other inorganic materials	40.200	mg	supplier	Cu Coil	Copper	7440-50-8		15.100	mg	375622	136036
				supplier	Ni Plating	Nickel	7440-02-0		5.800	mg	144279	52252
				supplier	Au Plating	Gold	7440-57-5		1.300	mg	32338	11712
				supplier	Bonding wire	Gold	7440-57-5		0.700	mg	1000000	6306
				supplier	Solder	Tin	7440-31-5		5.983	mg	965000	53901
				supplier	Solder	Silver	7440-22-4		0.217	mg	35000	1955
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				supplier	Solder	Silver	7440-22-4		0.217	mg	35000	1955
				supplier	Solder	Silver	7440-22-4		0.217	mg	35000	1955
Bonding wire	M-011 Other inorganic materials	0.700	mg	supplier	Bonding wire	Gold	7440-57-5		0.700	mg	1000000	6306
Solderball	M-011 Other inorganic materials	6.200	mg	supplier	Solder	Tin	7440-31-5		5.983	mg	965000	53901
				supplier	Solder	Silver	7440-22-4		0.217	mg	35000	1955