

Product				
Mfr Item Number	Mfr Item Name	Version	Mfr Site	Date
STM32F479VGT6	P21L*434XXA	B	9998	15-05-2018
	Amount	UoM	Unit type	ST ECOPACK Grade
	681.44	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	Tin (Sn), matte	Copper Alloy		

Package Designator	Size	Nbr of instances	Shape	
LQFP	14x14x1.4	100		
Comment	Package : 1L LQFP 100 14x14x1.4 1 0086901			

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	P21L*434XXXA				7000001.0	0.0
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	20.390	mg	supplier	die	Silicon (Si)	7440-21-3		19.080	mg	935753	28000
				supplier	metallization	Aluminium (Al)	7429-90-5		0.092	mg	4512	135
				supplier	metallization	Copper (Cu)	7440-50-8		0.595	mg	29181	873
				supplier	metallization	Cobalt (Co)	7440-48-4		0.002	mg	98	3
				supplier	metallization	Tantalum (Ta)	7440-25-7		0.083	mg	4071	122
				supplier	metallization	Tungsten (W)	7440-33-7		0.267	mg	13095	392
				supplier	Passivation	Silicon Nitride	12033-89-5		0.070	mg	3433	103
LEADFRAME (MHT- C194)	Copper and its alloy	146.796	mg	supplier	Passivation	Silicon Oxide	7631-86-9		0.201	mg	9858	295
				supplier	ALLOY	Copper (Cu)	7440-50-8		143.126	mg	975000	210035
				supplier	ALLOY	Iron (Fe)	7439-89-6		3.450	mg	23500	5062
				supplier	ALLOY	Zinc (Zn)	7440-66-6		0.176	mg	1200	259
				supplier	ALLOY	Metallic Phosphorus (P)	7723-14-0		0.044	mg	300	65
LEADFRAME (MHT - Ag Plating)	M-011 Other inorganic materials	1.568	mg	supplier	COATING	Silver(Ag)	7440-22-4		1.568	mg	1000000	2301
DIE ATTACH (Evertech - AP4200)	M-011 Other inorganic materials	4.398	mg	supplier	GLUE	Formaldehyde, oligomeric reaction products w	9003-36-5		0.704	mg	160000	1033
				supplier	GLUE	1,4-bis(2,3-epoxypropoxy)butane	2425-79-8		0.066	mg	15000	97
				supplier	GLUE	Formaldehyde, oligomeric reaction products w	9003-35-4		0.066	mg	15000	97
				supplier	GLUE	2-butoxyethyl acetate	112-07-2		0.176	mg	40000	258
BONDING WIRE (Hesung - Au HTS)	M-011 Other inorganic materials	1.510	mg	supplier	BONDING WIRE	Gold (Au)	7440-57-5		1.495	mg	990050	2194
				supplier	BONDING WIRE	Palladium (Pd)	7440-05-3		0.015	mg	9900	22
				supplier	BONDING WIRE	Calcium (Ca)	7440-70-2		0.000	mg	50	0
ENCAPSULATION (Sumitomo - G631H)	M-011 Other inorganic materials	501.321	mg	supplier	MOLDING COMPOUND	Epoxy Resin A	Trade Secret		9.837	mg	20000	14436
				supplier	MOLDING COMPOUND	Epoxy Resin B	85954-11-6		19.675	mg	40000	28872
				supplier	MOLDING COMPOUND	Silica Amorphous A	60676-86-0		395.570	mg	785000	-419510
				supplier	MOLDING COMPOUND	Silica Amorphous B	7631-86-9		41.809	mg	85000	61354
				supplier	MOLDING COMPOUND	Carbon Black	1333-86-4		2.459	mg	5000	3609
FINISHING (Sytron - Pure Tin)	M-011 Other inorganic materials	5.457	mg	supplier	MOLDING COMPOUND	Phenol Resin	Trade Secret		31.971	mg	65000	46917
				supplier	COATING	Tin (Sn)	7440-31-5		5.457	mg	1000000	8008