


Product				
Mfr Item Number	Mfr Item Name	Version	Mfr Site	Date
STM32F103VFT7	991L*430XXXA	A	959	2017-07-11
	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	Nickel/Palladium/Gold (Ni/Pd/Au)	Copper Alloy		

Package Designator	Size	Nbr of instances	Shape	
QFP	14x14x1.4	100	L Bend	
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 :						Mfr Item Name	991L*430XXXA				5.999999.0	0.0
note : Substance present with less 0.001mg will not be declared in this document												
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	26.130	mg	supplier	die	Silicon (Si)	7440-21-3		25.064	mg	959204	36781
				supplier	metallization	Aluminium (Al)	7429-90-5		0.072	mg	2755	106
				supplier	metallization	Copper (Cu)	7440-50-8		0.362	mg	13854	531
				supplier	metallization	Cobalt (Co)	7440-48-4		0.067	mg	2564	98
				supplier	metallization	Titanium (Ti)	7440-32-6		0.020	mg	765	29
				supplier	metallization	Tungsten (W)	7440-33-7		0.039	mg	1493	57
				supplier	Passivation	Silicon Nitride	12033-89-5		0.047	mg	1799	69
				supplier	Passivation	Silicon Oxide	7631-86-9		0.459	mg	17566	674
LEADFRAME	M-011 Other inorganic materials	157.508	mg	supplier	ALLOY	Copper (Cu)	7440-50-8		147.008	mg	933337	215731
				supplier	ALLOY	Iron (Fe)	7439-89-6		3.621	mg	22989	5314
				supplier	ALLOY	Iron Phosphide (Fe2P)	1310-43-6		0.045	mg	286	66
				supplier	ALLOY	Zinc (Zn)	7440-66-6		0.181	mg	1149	266
				supplier	SPOT	Silver (Ag)	7440-22-4		6.653	mg	42239	9763
DIE ATTACH	M-011 Other inorganic materials	2.904	mg	supplier	GLUE	Silver (Ag)	7440-22-4		2.483	mg	855000	3644
				supplier	GLUE	Dodecyl acrylate	2156-97-0		0.073	mg	25000	107
				supplier	GLUE	methylene diacrylate	42594-17-2		0.232	mg	80000	341
				supplier	GLUE	Diglycidylphenyl glycidyl ether	13561-08-5		0.058	mg	20000	85
				supplier	GLUE	Isobornyl Methacrylate	7534-94-3		0.029	mg	10000	43
supplier	GLUE	dimethylbenzyl peroxide	80-43-3		0.029	mg	10000	43				
BONDING WIRE	M-011 Other inorganic materials	1.534	mg	supplier	BONDING WIRE	Silver (Ag)	7440-22-4		1.480	mg	965000	2172
				supplier	BONDING WIRE	Gold (Au)	7440-57-5		0.008	mg	5000	11
				supplier	BONDING WIRE	Palladium (Pd)	7440-05-3		0.046	mg	30000	68
ENCAPSULATION	M-011 Other inorganic materials	487.907	mg	supplier	MOLDING COMPOUND	Silica, vitreous	6076-86-0		420.527	mg	861899	382886
				supplier	MOLDING COMPOUND	Epoxy Resin	Proprietary		37.158	mg	76159	54529
				supplier	MOLDING COMPOUND	Phenol Resin	Proprietary		24.772	mg	50772	36353
				supplier	MOLDING COMPOUND	3-Mercaptopropyl trimethoxysilane	4420-74-0		2.477	mg	5077	3635
				supplier	MOLDING COMPOUND	Quartz	14808-60-7		1.486	mg	3046	2181
supplier	MOLDING COMPOUND	Carbon black	1333-86-4		1.486	mg	3046	2181				
FINISHING	M-011 Other inorganic materials	5.457	mg	supplier	COATING	Tin (Sn)	7440-31-5		5.457	mg	100000	8008