


Product				
Mfr Item Number	Mfr Item Name	Version	Mfr Site	Date
STM32F103TBU6	P6ZR*410XXXX	A	9996	2017-04-09
	Amount	UoM	Unit type	ST ECOPACK Grade
	97.00	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	
Not Applicable; if coating is used or other bulk termination	Tin (Sn), matte	Copper Alloy		

Package Designator	Size	Nbr of instances	Shape	
QFN	6,6,1	36	No lead	
Comment	Package : ZR VFQFPN 36 6x6x1.0 PITCH 0.50 7185332			

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	P6ZR*410XXXX				7882600.0	1000000.0
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	7.787	mg	supplier	die	Silicon (Si)	7440-21-3		7.360	mg	945165	75876
				supplier	metallization	Aluminium (Al)	7429-90-5		0.029	mg	3724	299
				supplier	metallization	Copper (Cu)	7440-50-8		0.145	mg	18621	1495
				supplier	metallization	Cobalt (Co)	7440-48-4		0.027	mg	3467	278
				supplier	metallization	Titanium (Ti)	7440-32-6		0.008	mg	1027	82
				supplier	metallization	Tungsten (W)	7440-33-7		0.016	mg	2055	165
				supplier	Passivation	Silicon Nitride	12033-89-5		0.019	mg	2440	196
				supplier	Passivation	Silicon Oxide	7631-86-9		0.183	mg	23501	1887
SILICON DIE	M-011 Other inorganic materials	7.360	mg	supplier	DIE	Silicon (Si)	7440-21-3		7.360	mg	1000000	74480
LEADFRAME (C194Ag)	Copper and its alloy	46.124	mg	supplier	ALLOY	Copper (Cu)	7440-50-8		44.971	mg	975000	454955
				supplier	ALLOY	Iron (Fe)	7439-89-6		1.084	mg	23500	10966
				supplier	ALLOY	Zinc (Zn)	7440-66-6		0.055	mg	1200	560
LEADFRAME (C194Ag) Coating	M-011 Other inorganic materials	1.016	mg	supplier	ALLOY	Phosphorus (P)	7723-14-0		0.014	mg	300	140
				supplier	COATING	Silver (Ag)	7440-22-4		1.016	mg	1000000	10280
				supplier	GLUE	Carbocyclic acrylate	Proprietary		0.155	mg	100000	1563
DIE ATTACH (AMK06)	M-011 Other inorganic materials	1.545	mg	supplier	GLUE	Silver (Ag)	7440-22-4		1.314	mg	850000	13290
				supplier	GLUE	2-Propenoic acid,2-methyl-,2[(2,3,3a,4,7,7a(or	68586-19-6		0.070	mg	45000	704
				supplier	GLUE	Bis(.alpha.,.alpha.-Dimethylbenzyl)peroxide	80-43-3		0.008	mg	5000	78
BONDING WIRE	M-011 Other inorganic materials	0.007	mg	supplier	BONDING WIRE	Gold (Au)	7440-57-5		0.007	mg	1000000	66
ENCAPSULATION (EME G700Y)	M-011 Other inorganic materials	31.132	mg	supplier	MOLDING COMPOUND	Epoxy resin	Proprietary		1.946	mg	50000	20619
				supplier	MOLDING COMPOUND	Silica (Amorphous) A	60676-86-0		21.402	mg	750000	229009
				supplier	MOLDING COMPOUND	Phenol Resin	Proprietary		1.751	mg	45000	18557
				supplier	MOLDING COMPOUND	Silica (Amorphous) B	7631-86-9		5.838	mg	150000	61857
FINISHING PLATING (Matte Sn)	M-011 Other inorganic materials	2.030	mg	supplier	MOLDING COMPOUND	Carbon Black	1333-86-4		0.195	mg	5000	2062
				supplier	COATING	Nickel (Ni)	7440-02-0		2.030	mg	882600	20536