



Product				
Mfr Item Number	Mfr Item Name	Version	Mfr Site	Date
STM32L083VZT6	P21L*447XXXZ	A	9998	18-12-2017
	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	
QFF	14x14x1	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 :						Mfr Item Name	P21L*447XXZ				7000000.0	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	9.883	mg	supplier	die	Silicon (Si)	7440-21-3		9.578	mg	969139	14056
				supplier	metallization	Aluminium (Al)	7429-90-5		0.027	mg	2732	40
				supplier	metallization	Copper (Cu)	7440-50-8		0.088	mg	8904	129
				supplier	metallization	Tantalum (Ta)	7440-25-7		0.010	mg	1012	15
				supplier	metallization	Titanium (Ti)	7440-32-6		0.013	mg	1315	19
				supplier	metallization	Tungsten (W)	7440-33-7		0.001	mg	101	1
				supplier	Passivation	Silicon Nitride	12033-89-5		0.024	mg	2428	35
LEADFRAME (HDS - C194)	M-011 Other inorganic materials	158.862	mg	supplier	Passivation	Silicon Oxide	7631-86-9		0.142	mg	14368	208
				supplier	ALLOY	Copper (Cu)	7440-50-8		154.810	mg	974494	227181
				supplier	ALLOY	Iron (Fe)	7439-89-6		3.813	mg	24002	5596
				supplier	ALLOY	Zinc (Zn)	7440-66-6		0.191	mg	1202	280
LEADFRAME (HDS - uPPF Plating)	M-011 Other inorganic materials	4.542	mg	supplier	ALLOY	Metallic Phosphorous (P)	7723-14-0		0.048	mg	302	70
				supplier	COATING	Nickel (Ni)	7440-02-0		4.431	mg	975431	6502
				supplier	COATING	Palladium (Pd)	7440-05-3		0.094	mg	20712	138
				supplier	COATING	Gold (Au)	7440-57-5		0.010	mg	2160	14
DIE ATTACH (Sumitomo - 1076YB)	M-011 Other inorganic materials	1.694	mg	supplier	COATING	Silver (Ag)	7440-22-4		0.008	mg	1697	11
				supplier	GLUE	Silver(Ag)	7440-22-4		1.186	mg	699959	1740
				supplier	GLUE	Epoxy Resin A	9003-36-5		0.085	mg	50010	124
				supplier	GLUE	Silica fused	7631-86-9		0.169	mg	100019	249
				supplier	GLUE	Dicyandiamide	461-58-5		0.008	mg	5001	12
				supplier	GLUE	Diluent	3101-60-8		0.085	mg	50010	124
BONDING WIRE (MKE - Au HTS Wire)	M-011 Other inorganic materials	1.534	mg	supplier	GLUE	Allyl Compound	Trade Secret		0.085	mg	50010	124
				supplier	GLUE	Hardener	Trade Secret		0.076	mg	44991	112
				supplier	BONDING WIRE	Gold (Au)	7440-57-5		1.534	mg	999797	2251
				supplier	BONDING WIRE	Calcium (Ca)	7440-70-2		0.000	mg	40	0
ENCAPSULATION (Sumitomo -G631H)	M-011 Other inorganic materials	504.430	mg	supplier	BONDING WIRE	Palladium (Pd)	7440-05-3		0.000	mg	163	0
				supplier	MOLDING COMPOUND	Epoxy Resin A	Proprietary		14.837	mg	30000	-978226
				supplier	MOLDING COMPOUND	Epoxy resin B	85954-11-6		35.332	mg	70000	51848
				supplier	MOLDING COMPOUND	Silica fused (SiO3)	60676-86-0		423.978	mg	840000	622180
FINISHING (HDS - uPPF)	M-011 Other inorganic materials	0.495	mg	supplier	MOLDING COMPOUND	Carbon Black	1333-86-4		2.524	mg	5000	3703
				supplier	MOLDING COMPOUND	Phenol Resin	Trade Secret		27.760	mg	55000	40738
				supplier	COATING	Nickel (Ni)	7440-02-0		0.437	mg	882592	641
				supplier	COATING	Palladium (Pd)	7440-05-3		0.026	mg	52400	38
				supplier	COATING	Gold (Au)	7440-57-5		0.018	mg	36400	26
				supplier	COATING	Silver (Ag)	7440-22-4		0.014	mg	28609	21