


Product				
Mfr Item Number	Mfr Item Name	Version	Mfr Site	Date
STM32L011F4P6TR	XOYA*457FFFZ	A	9998	23-03-2018
	Amount	UoM	Unit type	ST ECOPACK Grade
	72.000	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
1	260	3		
bulk Solder Termination	Terminal Plating	Terminal Base Alloy	Comment	
able; if coating is used or other bulk	Nickel/Palladium/Gold (Ni/Pd/Au)	Copper Alloy		

Package Designator	Size	Nbr of instances	Shape	
TSSOP	4.4x6.5x0.9	20	L Bend	
Comment	Package : YA TSSOP 20 BODY 4.4 PITCH 0.65 0087225			

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	XOYA*457FFFZ				6000000.0	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	3.051	mg	supplier	die	Silicon (Si)	7440-21-3		2.924	mg	958374	40611
				supplier	metallization	Aluminium (Al)	7429-90-5		0.011	mg	3605	153
				supplier	metallization	Copper (Cu)	7440-50-8		0.037	mg	12127	514
				supplier	metallization	Tantalum (Ta)	7440-25-7		0.004	mg	1311	56
				supplier	metallization	Titanium (Ti)	7440-32-6		0.006	mg	1967	83
				supplier	Passivation	Silicon Nitride	12033-89-5		0.010	mg	3278	139
				supplier	Passivation	Silicon Oxide	7631-86-9		0.059	mg	19338	819
LEADFRAME (MSHE - C7025)	Copper and its alloy	32.442	mg	supplier	ALLOY	Copper (Cu)	7440-50-8		31.209	mg	962000	433461
				supplier	ALLOY	Nickel (Ni)	7440-02-0		0.973	mg	30000	13518
				supplier	ALLOY	Silicon (Si)	7440-21-3		0.211	mg	6500	2929
				supplier	ALLOY	Magnesium (Mg)	7439-95-4		0.049	mg	1500	676
LEADFRAME (MSHE - PPF Plating)	M-011 Other inorganic materials	0.839	mg	supplier	COATING	Nickel (Ni)	7440-02-0		0.814	mg	970000	11303
				supplier	COATING	Palladium (Pd)	7440-05-3		0.013	mg	15000	175
				supplier	COATING	Gold (Au)	7440-57-5		0.013	mg	15000	175
DIE ATTACH (Henkel - 8290)	M-011 Other inorganic materials	0.978	mg	supplier	GLUE	Silver(Ag)	7440-22-4		0.743	mg	760000	10323
				supplier	GLUE	Reaction product: bisphenol-F-(epichlorhydrin	9003-36-5		0.068	mg	70000	951
				supplier	GLUE	Fatty acids, C18-unsatd., dimers, polymers wit	68475-94-5		0.039	mg	40000	543
				supplier	GLUE	.gamma. Butyrolactone	96-48-0		0.039	mg	40000	543
				supplier	GLUE	Polyoxyalkylene amine	9046-10-0		0.039	mg	40000	543
				supplier	GLUE	Epoxy Resin	Proprietary		0.039	mg	40000	543
				supplier	GLUE	Epoxy Resin Modifier	Proprietary		0.005	mg	5000	68
BONDING WIRE (Heesung - Au HTS)	M-011 Other inorganic materials	0.270	mg	supplier	BONDING WIRE	Gold (Au)	7440-57-5		0.267	mg	990050	3713
				supplier	BONDING WIRE	Palladium (Pd)	7440-05-3		0.003	mg	9900	37
				supplier	BONDING WIRE	Calcium (Ca)	7440-70-2		0.000	mg	50	0
ENCAPSULATION (Sumitomo - G700K)	M-011 Other inorganic materials	34.420	mg	supplier	MOLDING COMPOUND	Epoxy Resin	Proprietary		2.698	mg	80000	37473
				supplier	MOLDING COMPOUND	Silica Amorphous A (SiO2)	60676-86-0		24.302	mg	700000	-662469
				supplier	MOLDING COMPOUND	Silica Amorphous B (SiO2)	7631-86-9		5.059	mg	150000	70263
				supplier	MOLDING COMPOUND	Phenol Resin	205830-20-2		2.175	mg	64500	30213
				supplier	MOLDING COMPOUND	Other Bismuth Compounds	Proprietary		0.017	mg	500	234
			mg	supplier	MOLDING COMPOUND	Carbon black	1333-86-4		0.169	mg	5000	2342