




Product				
Mfr Item Number	Mfr Item Name	Version	Mfr Site	Date
M24512-DFMC6TG	CGZW*2412BKB	B	P1C7	19-10-2017
	Amount	UoM	Unit type	ST ECOPACK Grade
	16.00	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
1	260	3		
bulk Solder Termination	Terminal Plating	Terminal Base Alloy	Comment	
NAC	Nickel/Palladium/Gold (Ni/Pd/Au)	Copper Alloy		

Package Designator	Size	Nbr of instances	Shape	
QFN	2x3x0.6	8	No lead	
Comment	Package : ZW UDFPN 2x3x0.6 8L 0.5MM PITCH 7558452			

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- 7th July 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	CGZW*24128KB				7000000.0	1000064.0
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	1.266	mg	supplier	die	Silicon (Si)	7440-21-3		1.201	mg	948657	75063
				supplier	metallization	Aluminium (Al)	7429-90-5		0.006	mg	4739	375
				supplier	metallization	Titanium (Ti)	7440-32-6		0.001	mg	790	63
				supplier	metallization	Tungsten (W)	7440-33-7		0.001	mg	790	63
				supplier	Passivation	Silicon Nitride	12033-89-5		0.004	mg	3160	250
Lead-frame	M-011 Other inorganic materials	2.994	mg	supplier	Passivation	Silicon Oxide	7631-86-9		0.053	mg	41864	3313
				supplier	alloy	Copper (Cu)	7440-50-8		2.918	mg	974500	182353
				supplier	alloy	Iron (Fe)	7439-89-6		0.070	mg	23460	4390
				supplier	alloy	Zinc (Zn)	7440-66-6		0.004	mg	1200	225
				supplier	alloy	Iron Phosphide (FeP)	26508-33-8		0.003	mg	840	157
Lead-frame Coating	M-011 Other inorganic materials	0.013	mg	supplier	coating	Nickel (Ni)	7440-02-0		0.012	mg	916800	748
				supplier	coating	Palladium (Pd)	7440-05-3		0.001	mg	58700	48
				supplier	coating	Gold (Au)	7440-57-5		0.000	mg	24500	20
Die Attach	M-011 Other inorganic materials	1.266	mg	supplier	glue or soft solder	Silver (Ag)	7440-22-4		1.108	mg	875000	69248
				supplier	glue or soft solder	polymer	28630-26-4		0.101	mg	80000	6331
				supplier	glue or soft solder	aniline	67784-74-1		0.013	mg	10000	791
				supplier	glue or soft solder	epoxy resin	Proprietary		0.038	mg	30000	2374
				supplier	glue or soft solder	Epoxy resin molecular weight <= 700	Proprietary		0.006	mg	5000	396
Wires	M-011 Other inorganic materials	0.036	mg	supplier	Bonding wire	Gold (Au)	7440-57-5		0.036	mg	1000000	2258
Encapsulation	M-011 Other inorganic materials	10.425	mg	supplier	Moulding Compound	vitrous silica	60676-86-0		8.882	mg	851906	555094
				supplier	Moulding Compound	Phenol resin	Proprietary		0.368	mg	35260	22975
				supplier	Moulding Compound	epoxy resin	Proprietary		0.420	mg	40298	26258
				supplier	Moulding Compound	carbon black	1333-86-4		0.021	mg	2015	1313
				supplier	Moulding Compound	2,2'-(3,3',5,5'-tetramethyl-1,1'-biphenyl)-4,4'	85954-11-6		0.210	mg	20149	13129
Finishing	M-011 Other inorganic materials	0.000	mg	supplier	Moulding Compound	Metal hydroxide	Proprietary		0.525	mg	50372	32822
				supplier	connections coating	Nickel (Ni)	7440-02-0		0.000	mg	916800	7
				supplier	connections coating	Palladium (Pd)	7440-05-3		0.000	mg	58700	0
				supplier	connections coating	Gold (Au)	7440-57-5		0.000	mg	24500	0