

Product				
Mfr Item Number	Mfr Item Name	Version	Mfr Site	Date
STM32U599NJH6Q	E1RM*481XXX	A	9991	23-02-2023
	Amount	UoM	Unit type	ST ECOPACK Grade
	490.00	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 : add in comments	NAC	Copper Alloy	SACN305	

Package Designator	Size	Nbr of instances	Shape	
BGA	13x13	216	bulk solder	
Comment	Package : A0L2 TFBGA 13X13X1.2 216L P 0.8 MM 8373526			

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-10 Jun 2022				
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	E1RM*481XXXX				6000000.0	1000000.9
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	6.911	mg	supplier	die	Silicon (Si)	7440-21-3		5.900	mg	853711	12041
				supplier	metallization	Aluminium (Al)	7429-90-5		0.112	mg	16206	229
				supplier	metallization	Copper (Cu)	7440-50-8		0.333	mg	48184	680
				supplier	metallization	Nickel (Ni)	7440-02-0		0.001	mg	145	2
				supplier	metallization	Tantalum (Ta)	7440-25-7		0.057	mg	8248	116
				supplier	metallization	Titanium (Ti)	7440-32-6		0.014	mg	2026	29
				supplier	metallization	Tungsten (W)	7440-33-7		0.002	mg	289	4
				supplier	Passivation	Silicon Nitride	12033-89-5		0.080	mg	11576	163
				supplier	Passivation	Silicon Oxide	7631-86-9		0.412	mg	59615	841
				Substrate (A29154A)	M-011 Other inorganic materials	206.148	mg	supplier	BT-substrate	Thermosetting resin (Inorganic filler)	Undisclosed	
supplier	BT-substrate	Glass cloth	65997-17-3						76.481	mg	371000	156083
supplier	BT-substrate	Copper foil	7440-50-8						94.210	mg	457000	192265
supplier	Solder mask	2-benzyl-2-dimethylamino-4-morpholinobutyrate	119313-12-1						7.318	mg	35500	14935
supplier	Solder mask	Naphtha (petroleum), heavy aromatic	64742-94-5						7.524	mg	36500	15356
supplier	Solder mask	TALC (CONTAINING NO ASBESTOS FIBRES)	14807-96-6						6.906	mg	33500	14094
supplier	Solder mask	1,3,5-Triazine-2,4,6-triamine	108-78-1						1.340	mg	6500	2735
supplier	film	Butadiene, acrylonitrile polymer, carboxy-terminated	68610-41-3						5.172	mg	686250	10554
supplier	film	Formaldehyde, polymer with (chloromethyl)oxane	37382-79-9						1.936	mg	256850	3950
supplier	film	Dapsone	80-08-0						0.278	mg	36900	568
supplier	film	[3-(2,3-Epoxypropoxy)propyl]trimethoxysilane	2530-83-8		0.075	mg	10000	154				
supplier	film	Reaction product: bisphenol-A-(epichlorhydrin)	25068-38-6		0.075	mg	10000	154				
Bonding wire (Au)	Precious metals	2.181	mg	supplier	Bonding wire	Gold (Au)	7440-57-5		2.181	mg	1000000	4451
Encapsulation (G1250AAS)	M-011 Other inorganic materials	225.203	mg	supplier	Molding Compound	Epoxy resin	Trade secret		9.008	mg	40000	18384
				supplier	Molding Compound	Silica(Fused)	60676-86-0,7631-86-9		202.683	mg	900000	413638
				supplier	Molding Compound	Phenol resin	Trade secret		12.611	mg	56000	25737
supplier	Molding Compound	Carbon Black	1333-86-4		0.901	mg	4000	1838				
Solder balls (SACN305)	Solder	42.021	mg	supplier	Solder	Metallic Tin	7440-31-5		40.529	mg	964500	82713
				supplier	Solder	Silver Atom	7440-22-4		1.261	mg	30000	2573
				supplier	Solder	Metallic Copper	7440-50-8		0.210	mg	5000	429
supplier	Solder	Nickel Element	7440-02-0		0.021	mg	500	43				