


Product				
Mfr Item Number	Mfr Item Name	Version	Mfr Site	Date
STM32L151RBH6	U3R8*416XXXV	A	959	2017-01-05
	Amount	UoM	Unit type	ST ECOPACK Grade
	64.00	mg	Each	ECOPACK® 2

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	
NAC	Tin/Silver/Copper (Sn/Ag/Cu)	Copper Alloy		

Package Designator	Size	Nbr of instances	Shape	
BGA	5x5x1.2	64	No lead	
Comment	TFBGA 5x5x1.2 64L			

QueryList : ROHS directive 2011/65/EU _ July 2011	
Query	Response
Product(s) meets EU RoHS requirement without any exemptions	true
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
Product(s) meets EU RoHS requirements by application of the selected exemption(s)	false
Product(s) does not meet EU RoHS requirements and is not under exemptions	false
Product(s) is obsolete, no information is available	false
Product(s) is unknown, no information is available	false
Exemption Id.	Description

QueryList : REACH-20th June 2016				
Query				Response
The product 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	U3R8*416XXXV					
Homogeneous Material	Material Group	Mass	UoM	Level	Substance Category	Substance	CAS	Exempt	Mass	UoM	Concentration in homogeneous material (ppm)	Concentration in product (ppm)
die (s)	Other inorganic materials	7.091	mg	supplier	die	Silicon (Si)	7440-21-3		6.749	mg	951770	105453
die (s)				supplier	metallization	Aluminium (Al)	7429-90-5		0.028	mg	3949	438
die (s)				supplier	metallization	Copper (Cu)	7440-50-8		0.122	mg	17205	1906
die (s)				supplier	metallization	Tantalum (Ta)	7440-25-7		0.003	mg	423	47
die (s)				supplier	metallization	Titanium (Ti)	7440-32-6		0.013	mg	1833	203
die (s)				supplier	metallization	Tungsten (W)	7440-33-7		0.001	mg	141	16
die (s)				supplier	passivation	Silicon Oxide(SiO2)	7631-86-9		0.025	mg	3526	391
die (s)				supplier	passivation	Indium Tin oxide (In2O3:SnO2)	50926-11-9		0.150	mg	21154	2344
Substrate	Other inorganic materials	17.112	mg	supplier	core+ fiber glass	Bismaleimide (B)	13676-54-5		0.774	mg	45252	12100
Substrate				supplier	core+ fiber glass	Triazine (T)	25722-66-1		0.774	mg	45252	12100
Substrate				supplier	core+ fiber glass	Fiber glass	65997-17-3		2.310	mg	134990	36094
Substrate				supplier	core+ fiber glass	metal hydroxide	21645-51-2		0.053	mg	3068	820
Substrate				supplier	core+ fiber glass	Zinc hydroxide	20427-58-1		0.016	mg	920	246
Substrate				supplier	core+ fiber glass	Thermosetting resin	na		1.297	mg	75778	20262
Substrate				supplier	core+ fiber glass	Calcium sulfate	7778-18-9		0.026	mg	1534	410
Substrate				supplier	solder mask	Baryum sulfate	7727-43-7		0.243	mg	14199	3796
Substrate				supplier	solder mask	(2-methoxymethylethoxy)propanol	34590-94-8		0.040	mg	2366	633
Substrate				supplier	solder mask	Talc containing no asbestiform fibers	14807-96-6		0.135	mg	7888	2109
Substrate				supplier	solder mask	Quartz	14808-60-7		0.135	mg	7888	2109
Substrate				supplier	solder mask	Acrylates derivative	407-47-6		0.559	mg	32657	8732
Substrate				supplier	solder mask	aromatic hydrocarbon	na		0.054	mg	3155	844
Substrate				supplier	solder mask	amine compound	na		0.008	mg	473	127
Substrate				supplier	coating	Copper (Cu)	7440-50-8		10.586	mg	618639	165413
Substrate				supplier	coating	Nickel (Ni)	7440-02-0		0.080	mg	4696	1256
Substrate				supplier	coating	Gold (Au)	7440-57-5		0.021	mg	1244	333
Die Attach	Other inorganic materials	2.344	mg	supplier	glue or tape	Silver (Ag)	7440-22-4		2.085	mg	889400	32571
Die Attach				supplier	glue or tape	Neopentyl glycol dimethacrylate	1985-51-9		0.117	mg	50000	1831
Die Attach				supplier	glue or tape	2,6-Diglycidyl phenyl allyl ether	EC 417-470-1		0.129	mg	55000	2014
Die Attach				supplier	glue or tape	palmitic acid	57-10-3		0.002	mg	1000	37
Die Attach				supplier	glue or tape	4-tert-butylcyclohexanol	98-52-2		0.007	mg	3000	110
Die Attach				supplier	glue or tape	Hexamethyltetracosane-hexaene	111-02-4		0.002	mg	1000	37
Die Attach				supplier	glue or tape	Fluorine trace	14762-94-8		0.001	mg	600	22
Wires	Other inorganic materials	0.351	mg	supplier	Bonding wire	Gold (Au)	7440-57-5		0.351	mg	1000000	5483
Encapsulation	Other inorganic materials	30.474	mg	supplier	Moulding Compound	Biphenyl epoxy resin	85954-11-6		2.742	mg	89988	42849
Encapsulation				supplier	Moulding Compound	Phenol resin	205830-20-2		1.371	mg	44994	21424
Encapsulation				supplier	Moulding Compound	Quartz	14808-60-7		0.686	mg	22497	10712
Encapsulation				supplier	Moulding Compound	Silica, vitreous	1333-86-4		25.401	mg	833523	396893
Encapsulation				supplier	Moulding Compound	Carbon Black	1309-42-8		0.247	mg	8099	3856
Encapsulation				supplier	Moulding Compound	Magnesium dihydroxide	Proprietary		0.027	mg	900	428
Solder Balls	Other inorganic materials	6.627	mg	supplier	solder	Tin (Sn)	7440-31-5		6.513	mg	982700	101763
Solder Balls				supplier	solder	Silver (Ag)	7440-22-4		0.080	mg	12000	1243
Solder Balls				supplier	solder	Copper (Cu)	7440-50-8		0.033	mg	5000	518
Solder Balls				supplier	solder	Nickel (Ni)	7440-02-0		0.001	mg	200	21
Solder Balls				supplier	solder	Lead (Pb)	7439-92-1		0.001	mg	100	10