



新普科技股份有限公司  
新世電子(常熟)有限公司  
新普科技(重慶)有限公司  
華普電子(常熟)有限公司  
Simplo Technology Co., Ltd.  
Simplo Technology(Changshu)Inc.  
Simplo Technology(Chongqing)Inc.  
Huapu Technology(Changshu)Inc.

Issued/Revised date :September 27 2019  
Document No. : SDS\_Simplo-1901

## Explanatory sheet about safety of product for transportation (Safety Data Sheet for transportation)

### 1. Basic item

Product name	Lithium-Ion Rechargeable Battery Pack
UN number:	3480
Product code:	Refer to Table 1.
Model name:	Refer to Table 1.
Manufacturer Name:	Simplo Technology Co., Ltd.
Address:	No.471, Sec.2, Pa Teh Rd., Hu Kou 303, Hsin Chu Hsien, Taiwan
Phone number:	+886-3-5695920
Fax number:	+886-3-5695931

### 2. Product information

Basic composition of the product This product is a battery which consists of such main component as core battery pack assembled with some Lithium ion cells. And it consists of any combination of plastic casing, tube casing, protection circuit boards, safety devices and interface terminals

### 3. Safety Information

Simplo certifies the battery has passed and satisfied the UN Manual of Tests and Criteria Part III, sub-section 38.3 testing in Simplo shipping. - Simplo manufactured the battery under the quality management program required in UN Model regulations 2.9.4(e)..

#### 3-1: Battery pack

1. The Watt-hour rating of the battery is not more than 100Wh.  
The Watt-hour rating of the component Lithium ion cells is not more than 20Wh.  
Refer to Appendix “SDS\_Simplo-1901”.
2. Packages of the battery satisfy the following conditions when Simplo ships.
  - (1) The package has passed the drop test from the height of 1.2m.
  - (2) The package net weight is not more than 10kg.
  - (3) The package is marked and labeled according to requirement of Packing Instruction 965 Section IB stated in ICAO’s and IATA’s dangerous goods regulations.
3. The battery is not defective for safety reasons, not damaged. It is not collected battery for recycling or disposal.
4. The battery is not subject to the fully regulated requirements for Dangerous Goods in ocean and ground transportation.
5. The battery should be transported by Cargo aircraft as UN3480, Class 9 Dangerous Goods, and state of charge not exceeding 30%, according to Packing Instruction 965 Section IB stated in ICAO’s and IATA’s dangerous goods regulations.



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Table. 1 Model list of application

Battery Part Numbers			Battery Information						
Lenovo ASM Lenovo PN Part Number	Lenovo FRU Part Number	Lenovo Model Name	MSDS Type #	UN DOT 38.3 Test Certificate	Cell Voltage (V)	Battery Voltage (V)	Watt hour Rating (Wh)	Weight (grams)	Equivalent Lithium Content (grams)
31507328		L14M4PA0	SDS_Simplo-1901	31507328_UN38.3	3.7	14.8	50	282	4.07
121500032		N/A	SDS_Simplo-1901	121500032_UN38.3	3.7	3.7	28	170	2.30
121500035		N/A	SDS_Simplo-1901	121500035_UN38.3	3.7	3.7	14	95	1.15
121500069		N/A	SDS_Simplo-1901	121500069_UN38.3	3.7	14.8	42	250	3.41
121500103		N/A	SDS_Simplo-1901	121500103_UN38.3	3.7	3.7	25	130	2.04
121500156		N/A	SDS_Simplo-1901	121500156_UN38.3	3.7	7.4	55	310	4.44
121500183		N/A	SDS_Simplo-1901	121500183_UN38.3	3.7	3.7	25	130	2.03
121500223		N/A	SDS_Simplo-1901	121500223_UN38.3	3.7	7.4	34	190	2.76
121500264		L13M4P71	SDS_Simplo-1901	121500264_UN38.3	3.8	7.6	45	218	3.54
5B10H09632		L14M2P22	SDS_Simplo-1901	5B10H09632_UN38.3	3.7	7.4	30	143	2.43
121001044		N/A	SDS_Simplo-1901	121001044_UN38.3	3.7	14.8	40	235	3.24
121001054		N/A	SDS_Simplo-1901	121001054_UN38.3	3.7	7.4	41	170	2.22
121500057		N/A	SDS_Simplo-1901	121500057_UN38.3	3.7	7.4	28	160	2.24
121500058		N/A	SDS_Simplo-1901	121500058_UN38.3	3.7	11.1	46	245	3.74
121500059		N/A	SDS_Simplo-1901	121500059_UN38.3	3.7	7.4	59	325	4.84
121500082		N/A	SDS_Simplo-1901	121500082_UN38.3	3.7	11.1	45	225	3.65
121500093		N/A	SDS_Simplo-1901	121500093_UN38.3	3.7	14.8	55	310	4.44
121500157		N/A	SDS_Simplo-1901	121500157_UN38.3	3.7	14.8	42	260	3.41
121500161		N/A	SDS_Simplo-1901	121500161_UN38.3	3.7	7.4	45	250	3.66
121500163		N/A	SDS_Simplo-1901	121500163_UN38.3	3.7	7.4	53	300	4.26
121500199		N/A	SDS_Simplo-1901	121500199_UN38.3	3.7	7.4	53	280	4.26
121500205		N/A	SDS_Simplo-1901	121500205_UN38.3	3.7	3.7	18	88	1.42
121500207		N/A	SDS_Simplo-1901	121500207_UN38.3	3.65	3.65	23	120	1.86
121500227		N/A	SDS_Simplo-1901	121500227_UN38.3	3.7	3.7	25	125	2.03
121500229		N/A	SDS_Simplo-1901	121500229_UN38.3	3.7	11.1	50	280	4.07
121500233		N/A	SDS_Simplo-1901	121500233_UN38.3	3.7	7.4	36	180	2.93
121500248		L13M4P01	SDS_Simplo-1901	121500248_UN38.3	3.7	7.4	49	271	3.96
121500250		L13M4P02	SDS_Simplo-1901	121500250_UN38.3	3.7	7.4	55	284	4.44
121500252		N/A	SDS_Simplo-1901	121500252_UN38.3	3.65	7.3	45	230	3.72
121500254		L13M6P61	SDS_Simplo-1901	121500254_UN38.3	3.7	11.1	35	174	2.83
5B10G52141		L14M4P71	SDS_Simplo-1901	5B10G52141_UN38.3	3.75	7.5	35	169	2.79
5B10G75095		L14M4P72	SDS_Simplo-1901	5B10G75095_UN38.3	3.7	7.4	46	232	3.77
5B10G78611		L14M3P21	SDS_Simplo-1901	5B10G78611_UN38.3	3.7	11.1	45	210	3.65



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Lenovo ASM Lenovo PN Part Number	Lenovo FRU Part Number	Lenovo Model Name	MSDS Type #	UN DOT 38.3 Test Certificate	Cell Voltage (V)	Battery Voltage (V)	Watt hour Rating (Wh)	Weight (grams)	Equivalent Lithium Content (grams)
5B10G78611		L14M3P21	SDS_Simplo-1901	5B10G78611_UN38.3	3.70	11.1	45	216	3.65
5B10G78612		L14M2P21	SDS_Simplo-1901	5B10G78612_UN38.3	3.70	7.4	30	151	2.43
5B10H09629		L14M3P22	SDS_Simplo-1901	5B10H09629_UN38.3	3.7	11.1	45	226	3.65
5B10H09630		L14M2P22	SDS_Simplo-1901	5B10H09630_UN38.3	3.7	7.4	30	143	2.43
5B10H09631		L14M4P21	SDS_Simplo-1901	5B10H09631_UN38.3	3.7	7.4	60	284	4.86
5B10H13092		L14M2P24	SDS_Simplo-1901	5B10H13092_UN38.3	3.8	7.6	31	153	2.43
5B10H13095		L14M2P23	SDS_Simplo-1901	5B10H13095_UN38.3	3.7	7.4	30	145	2.43
5B10H13100		L14M4P22	SDS_Simplo-1901	5B10H13100_UN38.3	3.8	7.6	24	123	1.89
5B10H22084		L14M4P23	SDS_Simplo-1901	5B10H22084_UN38.3	3.7	14.8	60	300	4.86
5B10H35531		L14M6P21	SDS_Simplo-1901	5B10H35531_UN38.3	3.7	11.1	90	520	7.29
5B10H41181		L14M3P24	SDS_Simplo-1901	5B10H41181_UN38.3	3.7	11.1	45	235	3.65
5B10H43261		L14M4P24	SDS_Simplo-1901	5B10H43261_UN38.3	3.75	7.5	66	285	5.28
5B10H54715		L14M4PB0	SDS_Simplo-1901	5B10H54715_UN38.3	3.75	15	60	285	4.86
5B10J46561		L15M2PB0	SDS_Simplo-1901	5B10J46561_UN38.3	3.8	7.6	35	145	2.77
5B10J50662		L15M4P20	SDS_Simplo-1901	5B10J50662_UN38.3	3.83	7.66	52	215	4.07
5B10K10166		L14M4P71	SDS_Simplo-1901	5B10K10166_UN38.3	3.75	7.5	34	170	2.79
5B10K10168		L14M2P22	SDS_Simplo-1901	5B10K10168_UN38.3	3.7	7.4	30	140	2.43
5B10K10171		L14M2P23	SDS_Simplo-1901	5B10K10171_UN38.3	3.7	7.4	30	145	2.43
5B10K10178		L14M2P24	SDS_Simplo-1901	5B10K10178_UN38.3	3.8	7.6	35	140	2.77
5B10K10181		L13M4P71	SDS_Simplo-1901	5B10K10181_UN38.3	3.8	7.6	45	215	3.54
5B10K10182		L14M2P21	SDS_Simplo-1901	5B10K10182_UN38.3	3.7	7.4	30	154	2.43
5B10K10186		L14M3P21	SDS_Simplo-1901	5B10K10186_UN38.3	3.7	11.1	45	210	3.65
5B10K10190		L13M4P02	SDS_Simplo-1901	5B10K10190_UN38.3	3.7	7.4	55	293	4.44
5B10K10215		L14M4P73	SDS_Simplo-1901	5B10K10215_UN38.3	3.8	7.6	40	185	3.16
5B10K10223		L14M4P22	SDS_Simplo-1901	5B10K10223_UN38.3	3.7	7.4	23	120	1.89
5B10K10224		L14M4P72	SDS_Simplo-1901	5B10K10224_UN38.3	3.7	7.4	46	230	3.77
5B10K13850		L15M6P11	SDS_Simplo-1901	5B10K13850_UN38.3	3.8	11.4	48	235	3.83
5B10K84291		L15M4PC0	SDS_Simplo-1901	5B10K84291_UN38.3	3.75	7.5	46	210	7.36
5B10K84494		L15M3PB0	SDS_Simplo-1901	5B10K84494_UN38.3	3.75	11.25	51	210	4.08
5B10K87712		L15M2PB2	SDS_Simplo-1901	5B10K87712_UN38.3	3.7	7.4	30	140	2.45
5B10K87713		L15M2PB4	SDS_Simplo-1901	5B10K87713_UN38.3	3.84	7.68	38	140	2.97
5B10K87714		L15M2PB2	SDS_Simplo-1901	5B10K87714_UN38.3	3.7	7.4	30	140	2.40



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5B10K87720		L15M2PB5	SDS_Simplo-1901	5B10K87720_UN38.3	3.84	7.68	39	153	3.05
5B10K87721		L15M2PB3	SDS_Simplo-1901	5B10K87721_UN38.3	3.7	7.4	30	140	2.45
5B10K87722		L15M2PB3	SDS_Simplo-1901	5B10K87722_UN38.3	3.7	7.4	30	150	2.40
5B10K88047		L15M3PB1	SDS_Simplo-1901	5B10K88047_UN38.3	3.7	11.1	45	210	3.65
5B10K90767		L15M4PC1	SDS_Simplo-1901	5B10K90767_UN38.3	3.8	7.6	40	180	3.16
5B10K90778		L15M4PC2	SDS_Simplo-1901	5B10K90778_UN38.3	3.82	7.64	53	227	4.18
5B10K90780		L15M3PB2	SDS_Simplo-1901	5B10K90780_UN38.3	3.75	11.25	44	200	3.51
5B10L02190		L15M4P23	SDS_Simplo-1901	5B10L02190_UN38.3	3.84	7.68	76	286	6.13
5B10L13949		L15M2PB6	SDS_Simplo-1901	5B10L13949_UN38.3	3.75	7.5	30	150	2.40
5B10L22508		L15M4P23	SDS_Simplo-1901	5B10L22508_UN38.3	3.84	7.68	76	286	6.13
5B10L55039		L15M6PC0	SDS_Simplo-1901	5B10L55039_UN38.3	3.75	7.5	46	200	11.04
5B10L72502		L15M4PC3	SDS_Simplo-1901	5B10L72502_UN38.3	3.84	7.68	41	165	3.20
5B10M33724		L16M4PB0	SDS_Simplo-1901	5B10M33724_UN38.3	3.7	14.8	58	305	4.69
5B10M41934		L16M3P24	SDS_Simplo-1901	5B10M41934_UN38.3	3.84	11.52	45	225	3.52
5B10M49823		L14M2P21	SDS_Simplo-1901	5B10M49823_UN38.3	3.7	7.4	30	155	2.43
5B10M49824		L15M3PB0	SDS_Simplo-1901	5B10M49824_UN38.3	3.75	11.25	53	214	4.20
5B10M50528		L15M2PB1	SDS_Simplo-1901	5B10M50528_UN38.3	3.75	7.5	35	160	2.80
5B10M52211		L16M4PB1	SDS_Simplo-1901	5B10M52211_UN38.3	3.84	7.68	48	190	3.76
5B10M52740		L16M4PB1	SDS_Simplo-1901	5B10M52740_UN38.3	3.84	7.68	48	195	3.76
5B10M52814		L14M3P21	SDS_Simplo-1901	5B10M52814_UN38.3	3.7	11.1	45	216	3.65
5B10M52818		L14M2P21	SDS_Simplo-1901	5B10M52818_UN38.3	3.7	7.4	30	154	2.43
5B10M55951		L16M4PB2	SDS_Simplo-1901	5B10M55951_UN38.3	3.75	15	55	235	4.41
5B10M86147		L16M2PB3	SDS_Simplo-1901	5B10M86147_UN38.3	3.84	7.68	30	140	2.35
5B10M86148		L16M2PB1	SDS_Simplo-1901	5B10M86148_UN38.3	3.7	7.4	30	140	2.45
5B10M86149		L16M2PB2	SDS_Simplo-1901	5B10M86149_UN38.3	3.75	7.5	35	140	2.80
5B10N00765		L16M4PB3	SDS_Simplo-1901	5B10N00765_UN38.3	3.84	7.68	96	200	7.52
5B10N00788		L14M6P21	SDS_Simplo-1901	5B10N00788_UN38.3	3.7	11.1	90	515	7.29
5B10N01565		L16M4P60	SDS_Simplo-1901	5B10N01565_UN38.3	3.84	7.68	70	260	5.47
5B10N87358		L17M3P61	SDS_Simplo-1901	5B10N87358_UN38.3	3.84	11.52	36	140	2.85
5B10P35083		L17M4PB1	SDS_Simplo-1901	5B10P35083_UN38.3	3.84	15.36	80	320	6.22
5B10P53995		L17M2PB4	SDS_Simplo-1901	5B10P53995_UN38.3	3.84	7.68	39	150	3.05
5B10P53996		L17M2PB2	SDS_Simplo-1901	5B10P53996_UN38.3	3.84	7.68	39	140	3.05
5B10P53998		L17M2PB3	SDS_Simplo-1901	5B10P53998_UN38.3	3.75	7.5	30	140	2.40
5B10P54001		L17M2PB1	SDS_Simplo-1901	5B10P54001_UN38.3	3.75	7.5	30	140	2.40
5B10P98183		L17M2PB5	SDS_Simplo-1901	5B10P98183_UN38.3	3.84	7.68	39	180	3.05



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5B10P98184		L17M2PB5	SDS_Simplo-1901	5B10P98184_UN38.3	3.84	7.68	39	180	3.05
5B10Q13164		L17M3PB0	SDS_Simplo-1901	5B10Q13164_UN38.3	3.75	11.25	42	180	3.36
5B10Q16066		L17M4PB0	SDS_Simplo-1901	5B10Q16066_UN38.3	3.84	7.68	46	185	3.56
5B10Q22883		L17M4PB2	SDS_Simplo-1901	5B10Q22883_UN38.3	3.84	11.52	34	140	2.67
5B10Q38238		L16M4PB1	SDS_Simplo-1901	5B10Q38238_UN38.3	3.84	7.68	48	200	3.76
5B10Q39199		L17M3P61	SDS_Simplo-1901	5B10Q39199_UN38.3	3.84	11.52	36	145	2.85
5B10Q39202		L15M3PB0	SDS_Simplo-1901	5B10Q39202_UN38.3	3.75	11.25	53	215	3.65
5B10Q39204		L14M2P21	SDS_Simplo-1901	5B10Q39204_UN38.3	3.7	7.4	30	153	2.43
5B10Q41211		L17M2PF0	SDS_Simplo-1901	5B10Q41211_UN38.3	3.75	7.5	35	140	2.80
5B10Q56954		L16M2PB1	SDS_Simplo-1901	5B10Q56954_UN38.3	3.75	7.5	30	140	2.40
SB10K10386		L14M4PA0	SDS_Simplo-1901	SB10K10386_UN38.3	3.7	14.8	50	274	4.07
SB10K10389		L15M6PA1	SDS_Simplo-1901	SB10K10389_UN38.3	3.75	11.25	50	470	3.96
SB18C15130		L15M3PB1	SDS_Simplo-1901	SB18C15130_UN38.3	3.7	11.1	45	200	3.65
SB10K97614	01AV467	L17M2P51	SDS_Simplo-1901	SB10K97614_UN38.3	3.84	7.68	39	163	3.048
SB10K97631	01AV487	L17M3P56	SDS_Simplo-1901	SB10K97631_UN38.3	3.75	11.25	42	200.9	3.36
SB10K97626	01AV482	L17M3P55	SDS_Simplo-1901	SB10K97626_UN38.3	3.7	11.1	45	232	3.67
SB10K97623	01AV474	L17M4P71	SDS_Simplo-1901	SB10K97623_UN38.3	3.84	15.36	54	234	4.21
SB10K97618	01AV471	L17M6P71	SDS_Simplo-1901	SB10K97618_UN38.3	3.82	11.46	48	260	3.77
SB10K97621	01AV479	L17M3P71	SDS_Simplo-1901	SB10K97621_UN38.3	3.84	11.52	57	240	4.46
SB10K97611	01AV464	L17M3P53	SDS_Simplo-1901	SB10K97611_UN38.3	3.7	11.1	45	223	3.7
SB10K97607	01AV446	L17M3P51	SDS_Simplo-1901	SB10K97607_UN38.3	3.7	11.1	45	223	3.65
SB10K97603	01AV460	L16M3P72	SDS_Simplo-1901	SB10K97603_UN38.3	3.82	11.46	24	150	1.89
SB10K97602	01AV459	L16M3P71	SDS_Simplo-1901	SB10K97602_UN38.3	3.82	11.46	24	135	1.89
SB10K97597	01AV452		SDS_Simplo-1901	SB10K97597_UN38.3	3.82	11.46	24	150	1.89
SB10K97567	01AV458		SDS_Simplo-1901	SB10K97567_UN38.3	3.82	15.28	56	253	4.4
SB10K97596	01AV443		SDS_Simplo-1901	SB10K97596_UN38.3	3.75	11.25	42	200	3.36
SB10K97593	01AV436		SDS_Simplo-1901	SB10K97593_UN38.3	3.75	11.25	42	230	3.41
SB10K97587	01AV430		SDS_Simplo-1901	SB10K97587_UN38.3	3.84	11.52	57	245	4.46
SB10K97590	01AV433		SDS_Simplo-1901	SB10K97590_UN38.3	3.82	15.28	51	242	4.01
SB10K97578	01AV421		SDS_Simplo-1901	SB10K97578_UN38.3	3.82	11.46	24	130	1.89
SB10L84122	00UR891		SDS_Simplo-1901	SB10L84122_UN38.3	3.82	15.28	32	165	2.51
SB10K97570	01AV413		SDS_Simplo-1901	SB10K97570_UN38.3	3.7	11.1	45	223	3.67
SB10K97572	01AV415		SDS_Simplo-1901	SB10K97572_UN38.3	3.82	15.28	32	179	2.51
SB10J79003	01AV406		SDS_Simplo-1901	SB10J79003_UN38.3	3.82	11.46	27	135	2.05



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Table. 1 Model list of application

Battery Part Numbers			Battery Information						
Lenovo ASM Lenovo PN Part Number	Lenovo FRU Part Number	Lenovo Model Name	MSDS Type #	UN DOT 38.3 Test Certificate	Cell Voltage (V)	Battery Voltage (V)	Watt hour Rating (Wh)	Weight (grams)	Equivalent Lithium Content (grams)
SB10J78994	00HW046		SDS_Simplo-1901	SB10J78994_UN38.3	3.75	7.5	37	168	2.96
SB10H45076	00NY491		SDS_Simplo-1901	SB10H45076_UN38.3	3.75	15	66	370	5.28
SB10H45078	00NY493		SDS_Simplo-1901	SB10H45078_UN38.3	3.75	11.25	90	460	7.20
SB10F46461	00HW023		SDS_Simplo-1901	SB10F46461_UN38.3	3.8	11.4	24	140	1.86
SB10F46463	00HW025		SDS_Simplo-1901	SB10F46463_UN38.3	3.8	11.4	24	135	1.86
SB10F46465	00HW027		SDS_Simplo-1901	SB10F46465_UN38.3	3.8	15.2	44	242	3.47
SB10F46467	01AV439		SDS_Simplo-1901	SB10F46467_UN38.3	3.8	15.2	52	253	4.11
SB10J78998	01AV401		SDS_Simplo-1901	SB10J78998_UN38.3	3.75	11.25	42	191	3.36
SB10J78992	00HW044		SDS_Simplo-1901	SB10J78992_UN38.3	3.75	11.25	42	201	3.36
SB10F46455	00HW017		SDS_Simplo-1901	SB10F46455_UN38.3	3.75	7.5	32	155	2.52
SB10F46445	00HW007		SDS_Simplo-1901	SB10F46445_UN38.3	3.7	7.4	26	154	2.11
SB10F46441	00HW003		SDS_Simplo-1901	SB10F46441_UN38.3	3.8	15.2	50	266	3.95
45N1750	45N1751		SDS_Simplo-1901	45N1750_UN38.3	3.7	7.4	34	170	2.76
SB10F46439	00HW001		SDS_Simplo-1901	SB10F46439_UN38.3	3.7	14.8	56	281	4.54
45N1728	45N1729		SDS_Simplo-1901	45N1728_UN38.3	3.75	3.75	33	158	2.64
45N1706	45N1707		SDS_Simplo-1901	45N1706_UN38.3	3.7	14.8	47	248	3.82
45N1702	45N1703		SDS_Simplo-1901	45N1702_UN38.3	3.7	14.8	45	259	3.65
45N1138	45N1139		SDS_Simplo-1901	45N1138_UN38.3	3.7	14.8	46	248	3.73
45N1102	45N1103		SDS_Simplo-1901	45N1102_UN38.3	3.7	11.1	42	205	3.41
45N1100	45N1101		SDS_Simplo-1901	45N1100_UN38.3	3.7	14.8	28	176	2.27
45N1086	45N1087		SDS_Simplo-1901	45N1086_UN38.3	3.7	14.8	48	250	3.96
45N1070	45N1071		SDS_Simplo-1901	45N1070_UN38.3	3.7	14.8	46	270	3.73
SB10K97635	01AV496	L17M6P51	SDS_Simplo-1901	SB10K97635_UN38.3	3.75	11.25	90	460	7.2
SB10Q76928	01AY968	L17M4P72	SDS_Simplo-1901	SB10Q76928_UN38.3	3.84	15.36	80	310	6.09
5B10N87358		L17M3P61	SDS_Simplo-1901	5B10N87358_UN38.3	3.84	11.52	36	145	2.85
5B10Q13163		L17M3PB0	SDS_Simplo-1901	5B10Q13163_UN38.3	3.75	11.25	42	180	3.36
5B10Q62139		L17M2PF2	SDS_Simplo-1901	5B10Q62139_UN38.3	3.84	7.68	30	150	2.35
5B10Q41210		L17M3PH0	SDS_Simplo-1901	5B10Q41210_UN38.3	3.84	11.52	47.98	200	3.75
5B10Q82426		L17M4PH1	SDS_Simplo-1901	5B10Q82426_UN38.3	3.84	15.36	60	245	4.69
5B10Q80766		L17M3PG1	SDS_Simplo-1901	5B10Q80766_UN38.3	3.75	11.25	52.5	212	4.20
5B10Q88556		L17M4PG2	SDS_Simplo-1901	5B10Q88556_UN38.3	3.84	15.36	76	307.5	5.95
5B10Q88555		L17M3PG2	SDS_Simplo-1901	5B10Q88555_UN38.3	3.84	11.52	57	212	4.46
5B10Q88560		L17M3PG2	SDS_Simplo-1901	5B10Q88560_UN38.3	3.84	11.52	57	225	4.46
5B10Q93737		L17M2PF3	SDS_Simplo-1901	5B10Q93737_UN38.3	3.84	7.68	39	140	3.05
5B10R33000		L17M6PF0	SDS_Simplo-1901	5B10R33000_UN38.3	3.82	11.46	48	275	3.77
5B10R32749		L17M4PE1	SDS_Simplo-1901	5B10R32749_UN38.3	3.84	11.36	42	175	3.28



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Table. 1 Model list of application

Battery Part Numbers			Battery Information						
Lenovo ASM Lenovo PN Part Number	Lenovo FRU Part Number	Lenovo ModelName	MSDS Type #	UN DOT 38.3 Test Certificate	Cell Voltage (V)	Battery Voltage (V)	Watt hour Rating (Wh)	Weight (grams)	Equivalent Lithium Content (grams)
5B10R24750		L17M2PF0	SDS_Simplo-1901	5B10R24750_UN38.3	3.75	7.5	35	145	2.80
5B10R37086		L17M4PH3	SDS_Simplo-1901	5B10R37086_UN38.3	3.84	3.84	30	260	3.11
5B10R51233		L18M4PG0	SDS_Simplo-1901	5B10R51233_UN38.3	3.75	7.5	56	240	4.48
SB10K97636		L17M6P52	SDS_Simplo-1901	SB10K97636_UN38.3	3.75	11.25	99	474.6	7.7
5B10R38650		L17M4PF0	SDS_Simplo-1901	5B10R38650_UN38.3	3.84	15.36	45	185	3.56
5B10S73396		L17M3PB0	SDS_Simplo-1901	5B10S73396_UN38.3	3.75	11.25	42	180	3.36
SB10J78998		N/A	SDS_Simplo-1901	SB10J78998_UN38.3	3.75	11.25	42	180	3.36
SB10K97640	02DL001	L18M3P52	SDS_Simplo-1901	SB10K97640_UN38.3	3.75	11.25	42	180	3.36
SB10K97639	02DL000	L18M3P51	SDS_Simplo-1901	SB10K97639_UN38.3	3.75	11.25	42	180	3.36
5B10T09080		L18M4PF4	SDS_Simplo-1901	5B10T09080_UN38.3	3.86	15.44	50	195	3.936
5B10T04979		L18M3PG2	SDS_Simplo-1901	5B10T04979_UN38.3	3.84	11.52	57	230	4.455
5B10T09111		L18M3PG2	SDS_Simplo-1901	5B10T09111_UN38.3	3.84	11.52	57	230	4.455
SB10K97650		L18M3P71	SDS_Simplo-1901	SB10K97650_UN38.3	3.84	11.52	57.08	220	4.4595
SB10K97652		L18M3PD1	SDS_Simplo-1901	SB10K97652_UN38.3	3.84	11.52	57	220	4.455
SB10K97655		L18M6PD1	SDS_Simplo-1901	SB10K97655_UN38.3	3.82	11.46	48	225	7.542
SB10K97662		L18M6PD3	SDS_Simplo-1901	SB10K97662_UN38.3	3.82	11.46	48	220	3.771
SB10K97628	01AV484	L17M6P72	SDS_Simplo-1901	SB10K97628_UN38.3	3.82	11.46	48	260	7.542
5B10T07386		L18M4PC0	SDS_Simplo-1901	5B10T07386_UN38.3	3.86	7.72	52	220	1.989
5B10T30216		L17M3PG1	SDS_Simplo-1901	5B10T30216_UN38.3	3.75	11.25	52.5	220	4.203
5B10T30214		L17M3PG2	SDS_Simplo-1901	5B10T30214_UN38.3	3.84	11.52	57	227	4.4595
5B10T36866		L17M3PB0	SDS_Simplo-1901	5B10T36866_UN38.3	3.75	11.25	42	180	3.3615
5B10T11585		L18M4PH0	SDS_Simplo-1901	5B10T11585_UN38.3	3.84	7.68	60	260	4.692
SB10K97664	02DL028	L18M6P90	SDS_Simplo-1901	SB10K97664_UN38.3	3.75	11.25	90	385	7.2
SB10K97662	02DL026	L18M6PD3	SDS_Simplo-1901	SB10K97662_UN38.3	3.82	11.46	48	220	3.771
SB10K97643	02DL005	L18M4P72	SDS_Simplo-1901	SB10K97643_UN38.3	3.84	15.36	50	204	3.984
5B10T83739		L18M3PFA	SDS_Simplo-1901	5B10T83739_UN38.3	3.84	11.52	60.3	240	4.7115
5B10U97772		L19M4PD2	SDS_Simplo-1901	5B10U97772_UN38.3	3.84	15.36	62.3	245	4.872
SB10V26975		L19M4PG0	SDS_Simplo-1901	SB10V26975_UN38.3	3.84	15.36	60.9	260	4.764
SB10V25256		L19M2PF0	SDS_Simplo-1901	SB10V25256_UN38.3	3.75	7.5	35	150	2.802



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# MATERIAL SAFETY DATA SHEET

Issued/Revised date :September 27 2019  
 Document No. : SDS\_Simplo-1901

## 1. Product and Company Identification

Product Identification :  
 Product name: Lithium ion rechargeable battery cell  
 Product code: All Polymer models ATL manufactured  
 Cell manufacturers: Amperex Technology Limited

## 2. Hazards Identification

Class Name : Not applicable for regulated class  
 Hazard : It may cause heat generation or electrolyte leakage if battery terminals contact with other metals.  
 Electrolyte is flammable. In case of electrolyte leakage, move the battery from fire immediately.  
 Toxicity : Vapor generated from burning batteries, may make eyes, skin and throat irritate.

## 3. Composition / Identification on Ingredients

IMPORTANT NOTE:  
 The battery should not be opened or burned since the following ingredients contained within the battery that could be harmful under some circumstance if exposed or misused.  
 The cell contains neither metallic lithium nor lithium alloy.

Composition :  
 CAS Number: Not specified (3-1 and 3-2)

- 3-1. Cases: Plastic Material Not dangerous
- 3-2. Printed Circuit Board Assembly: Not dangerous
- 3-3. Lithium Ion Cell :

Hazardous Ingredients	%	CAS Number
Graphite	7-25	7782-42-5
Lithium cobalt	15-40	12190-79-3
Lithium Nickel Cobalt Manganese Oxide	5-40	182442-95-1
Lithium Hexafluorophosphate	0-5	21324-40-3
Acetylene Black	0-2	1333-86-4
Diethyl Carbonate	0-15	105-58-8
Dimethyl Carbonate	0-15	616-38-6
Ethyl Methyl Carbonate	0-15	623-53-0
Propylene Carbonate	0-15	108-32-7
Ethylene Carbonate	0-15	96-49-1





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**4. First Aid Measures**

The product contains organic electrolyte. In case of electrolyte leakage from the battery, actions described below are required.

Eye contact : Flush the eyes with plenty of clean water for at least 15 minutes immediately, without rubbing, and call a doctor. If appropriate procedures are not taken, this may cause an eye irritation.

Skin contact : Wash the contact areas off immediately with plenty of water and soap. If appropriate procedures are not taken, this may cause sores on the skin.

Inhalation : Remove to fresh air immediately, and call a doctor.

**5. Fire Fighting Measures**

Use specified extinguishers (gas, foam, powder) and extinguishing system under the Fire Defense Law. Since corrosive gas may be produced at the time of fire extinguishing, use an air inhalator when danger is predicted.

Use a large amount of water as a supportive measure in order to get cooling effect if needed. (Indoor/outdoor fire hydrant)

Carry away flammable materials immediately in case of fire.

Move batteries to a safer place immediately in case of fire.

**6. Accidental Release Measures**

Wipe off with dry cloth

Keep away from fire

Wear safety goggles, safety gloves as needed

**7. Precautions for Safe Handling and Use**

Storage : Store within the recommended limit of -20°C to 45°C (-4°F to 113°F), well-ventilated area.

Do not expose to high temperature (60°C/140°F). Since short circuit can cause burn hazard or gas release, do not store with metal jewelry, metal covered tables, or metal belt. The lithium ion battery should be between 25% and 75% of full charge when stored for a long period of time. Store in a cool, dry, well-ventilated area. And temperature above 100 Celsius degree can result in loss of battery performance, leakage, or rust. Do not expose the battery to open flames..

Handling : Do not disassemble, remodel, or solder. Do not short + and - terminals with a metal. Do not open the battery.

Charging : Charge within the limits of 0°C to 45°C (32°F to 113°F) temperature. Charge with specified charger designed for this battery.

Discharging :Discharge within the limits of -20°C to 60°C (-4 °F to 140°F) temperature. Disposal :

Dispose in accordance with applicable federal, state and local regulations. Caution : Fire, Explosion, and Severe Burn Hazard. Do not Crush, Disassemble, Heat Above 100°C/212°F, or Incinerate.

**8. Exposure Controls / Personal Protection (In case electrolyte is leaked from battery )**

Acceptable concentration : Not specified in ACGIH. Facilities : Provide appropriate ventilation such as local ventilation system in the storage. Protective clothing : Gas mask for organic gases, safety goggle, safety glove.

**9. Physical and Chemical Properties**

State	Solid
Odor	N/A
PH	N/A



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Vapor pressure	N/A
Vapor density	N/A
Boiling point	N/A
Solubility in water	Insoluble
Specific gravity	N/A
Density	N/A

### **10. Stability and Reactivity**

External short-circuit, deformation by crush, high temperature (over 100°C) exposure of a battery cause generation of heat and ignition.

### **11. Toxicological Information**

Acute toxicity : No information as a battery.  
Local effects : No information as a battery.

### **12. Ecological Information**

When exhausted battery is buried in the ground, corrosion may be caused on the outer case of battery and electrolyte may be oozed. There is no information on environmental influence.

### **13. Disposal Consideration**

When battery is disposed, isolate positive (+) and negative (-) terminals of the battery to avoid those terminals from touching each other. Batteries may be short-circuited when piled up or mixed with the other batteries in disorder. Dispose in accordance with applicable federal, state and local regulations

### **14. Transport Information**

In the case of transportation, avoid exposure to high temperature and prevent the formation of any condensation. Take in a cargo of them without falling, dropping and breakage. Prevent collapse of cargo piles and wet by rain. The container must be handled carefully. Do not give shocks that result in a mark of hitting on a cell. Please refer to Section 7-HANDLING AND STORAGE also.

#### **UN regulation**

UN number: 3480 (3481 when the battery is contained in equipment or packed with equipment) Proper shipping name: Lithium ion batteries (“lithium ion batteries contained in equipment” or “lithium ion batteries packed with equipment”) Class: 9 \* \* Although this product meets the criteria of “dangerous goods” and are classified as “lithium ion batteries”, depending on the battery’s total capacity in the packaging, etc., they may not be subject to the fully regulated provisions.

#### **Regulation depends on region and transportation mode**

Worldwide - Air transportation:

ICAO/IATA-DGR [packing instruction 965 section IB or II] (When shipping batteries “packed with” or “contained in” equipment, use packing instruction 966 or 967 as appropriate.)

Worldwide - Ocean transportation:

IMO-IMDG Code [special provision 188 and 230]

Europe - Ground transportation: ADR [special provision 188 and 230]

\* Instructions or provisions in the box brackets are conditions to make the battery cell exempted from full regulation.



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## ***15.Regulatory Information***

IMDG Code: International Maritime Dangerous Goods (IMDG) Code [2018 Edition](#)

ICAO TI: International Civil Aviation Organization (ICAO) Technical Instructions for the Safe Transport of Dangerous Goods by Air [2019-2020Edition](#)

IATA DGR: International Air Transport Association (IATA) Dangerous Goods Regulations ([60th Edition, 2019](#))

## ***16.Other Information***

The information contained herein is furnished without warranty of any kind, Users should consider this data only as a supplement to other information gathered by them and must make independent determinations of the suitability and completeness of information from all sources to assure proper use and disposal of these materials and the safety and health of employees and customers.