

Common Name: MODEL INR18650-13P LITHIUM ION RECHARGEABLE BATTERY**Manufacturer:** SAMSUNG SDI KOREA**SDS Revision Date:** (No Date)**SDS Format:** No Format Specified**Grainger Item Number(s):** 1ANU2, 1ANU3, 1XPF9, 1ZTB1, 2PZC1, 2TYF6, 2WGX5, 3XA71, 4WLH4, 4WLH5, 4WLH6, 4WLH7, 4WLH8, 4WLH9, 4WLJ1, 4WLJ2, 4WLJ3, 4WLJ4, 4WLJ5, 4WLJ7, 4WLJ8, 4WLJ9, 4WLK1, 4WLK2, 4WLK3, 4WLK4, 4WLK5, 4WLK6, 4WLK7, 4WLK8, 4WLK9, 4WLL1, 4WLL2, 4WLL3, 4WLL4, 4WLL5, 4WLL6, 4WLL7, 4WLL8, 4WLL9, 4WLN1, 4WLN2, 4WLN3, 5EAK4, 5EEW5, 5EEW6, 5JLT9**Manufacturer Model
Number(s):**

MATERIAL SAFETY DATA SHEET

MODEL INR18650-13P LITHIUM ION RECHARGEABLE BATTERY

SAMSUNG SDI CORPORATION

1. CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

PRODUCT IDENTIFICATION:

SAMSUNG SDI ICR18650-13 LITHIUM-ION BATTERY (EQUIVALENT LITHIUM CONTENT:
0.39 (G/AH))

MANUFACTURER:

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2. COMPOSITION INFORMATION

HAZARDOUS INGREDIENTS	%	CAS NUMBER
ALUMINUM FOIL	2-10	7429-90-5
METAL OXIDE (PROPIETARY)	20-50	

POLYVINYLIDENE FLUORIDE (PVDF)	<5	24937-79-9
COPPER FOIL	2-10	7440-50-8
CARBON (PROPRIETARY)	10-30	7440-44-0
ELECTROLYTE (PROPRIETARY)	10-20	
STAINLESS STEEL, NICKEL AND INERT MATERIALS	REMAINDER	N/A

3. HAZARDS IDENTIFICATION

PRIMARY ROUTES OF ENTRY:

SKIN CONTACT, SKIN ABSORPTION, EYE CONTACT, INHALATION, AND INGESTION: NO

SYMPTOMS OF EXPOSURE:

SKIN CONTACT: NO EFFECT UNDER ROUTINE HANDLING AND USE.

SKIN ABSORPTION: NO EFFECT UNDER ROUTINE HANDLING AND USE.

EYE CONTACT: NO EFFECT UNDER ROUTINE HANDLING AND USE.

INHALATION: NO EFFECT UNDER ROUTINE HANDLING AND USE.

REPORTED AS CARCINOGEN: NOT APPLICABLE

4. FIRST AID MEASURES

INHALATION, EYE CONTACT, AND SKIN CONTACT: NOT A HEALTH HAZARD.

INGESTION:

IF SWALLOWED, OBTAIN MEDICAL ATTENTION IMMEDIATELY.

IF EXPOSURE TO INTERNAL MATERIALS WITHIN CELL DUE TO DAMAGED OUTER CASING,
THE FOLLOWING ACTIONS ARE RECOMMENDED.

INHALATION: LEAVE AREA IMMEDIATELY AND SEEK MEDICAL ATTENTION.

EYE CONTACT:

RINSE EYES WITH WATER FOR 15 MINUTES AND SEEK MEDICAL ATTENTION.

SKIN CONTACT:

WASH AREA THOROUGHLY WITH SOAP AND WATER AND SEEK MEDICAL ATTENTION.

INGESTION: DRINK MILK/WATER AND INDUCE VOMITING; SEEK MEDICAL ATTENTION.

5. FIRE FIGHTING MEASURES

GENERAL HAZARD:

CELL IS NOT FLAMMABLE BUT INTERNAL ORGANIC MATERIAL WILL BURN IF THE CELL IS INCINERATED. COMBUSTION PRODUCTS INCLUDE, BUT ARE NOT LIMITED TO HYDROGEN FLUORIDE, CARBON MONOXIDE AND CARBON DIOXIDE.

EXTINGUISHING MEDIA:

USE EXTINGUISHING MEDIA SUITABLE FOR THE MATERIALS THAT ARE BURNING.

SPECIAL FIREFIGHTING INSTRUCTIONS:

IF POSSIBLE, REMOVE CELL(S) FROM FIRE FIGHTING AREA. IF HEATED ABOVE 125 DEG. C, CELL(S) CAN EXPLODE/VENT.

FIREFIGHTING EQUIPMENT:

USE NIOSH/MSHA APPROVED FULL-FACE SELF-CONTAINED BREATHING APPARATUS (SCBA) WITH FULL PROTECTIVE GEAR.

6. ACCIDENTAL RELEASE MEASURES

ON LAND:

PLACE MATERIAL INTO SUITABLE CONTAINERS AND CALL LOCAL FIRE/POLICE DEPARTMENT.

IN WATER:

IF POSSIBLE, REMOVE FROM WATER AND CALL LOCAL FIRE/POLICE DEPARTMENT.

7. HANDLING AND STORAGE

HANDLING:

NO SPECIAL PROTECTIVE CLOTHING REQUIRED FOR HANDLING INDIVIDUAL CELLS.

STORAGE: STORE IN A COOL, DRY PLACE.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

ENGINEERING CONTROLS:

KEEP AWAY FROM HEAT AND OPEN FLAME. STORE IN A COOL DRY PLACE.

PERSONAL PROTECTION:**RESPIRATOR:**

NOT REQUIRED DURING NORMAL OPERATIONS. SCBA REQUIRED IN THE EVENT OF A FIRE.

EYE/FACE PROTECTION: NOT REQUIRED BEYOND SAFETY PRACTICES OF EMPLOYER.

GLOVES: NOT REQUIRED FOR HANDLING OF CELLS.

FOOT PROTECTION: STEEL TOED SHOES RECOMMENDED FOR LARGE CONTAINER HANDLING.

9. PHYSICAL AND CHEMICAL PROPERTIES

STATE: SOLID

ODOR: N/A

pH: N/A

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

REACTIVITY: NONE

INCOMPATIBILITIES:

NONE DURING NORMAL OPERATION. AVOID EXPOSURE TO HEAT, OPEN FLAME, AND CORROSIVES.

HAZARDOUS DECOMPOSITION PRODUCTS:

NONE DURING NORMAL OPERATING CONDITIONS. IF CELLS ARE OPENED, HYDROGEN FLUORIDE AND CARBON MONOXIDE MAY BE RELEASED.

CONDITIONS TO AVOID:

AVOID EXPOSURE TO HEAT AND OPEN FLAME. DO NOT PUNCTURE, CRUSH OR INCINERATE.

11. TOXICOLOGICAL INFORMATION

THIS PRODUCT DOES NOT ELICIT TOXICOLOGICAL PROPERTIES DURING ROUTINE HANDLING AND USE.

SENSITIZATION: NO

TERATOGENICITY: NO

REPRODUCTIVE TOXICITY: NO

ACUTE TOXICITY: NO

THIS PRODUCT DOES NOT CONTAIN ANY KINDS OF THE FOLLOWING SUBSTANCES AND HALOGEN-TYPE FLAME RETARDANTS INCLUDING CHLORINE AND BROMIDE TYPE HARMFUL FLAME RETARDANTS WHICH ARE LISTED IN APPENDIX OF TCO DOCUMENTS AND RELEVANT INTERNATIONAL ECO REQUIREMENTS:

POLYBROMATED BIPHENYLS (PBB)
POLYBROMATED BIPHENYL ETHERS (PBBE)
POLYBROMATED BIPHENYL OXIDES (PBBO)
POLYBROMATED DIPHENYLEETHERS (PBDE)
POLYCHLORINATED BIPHENYL (PCB)
POLYCHLORONATED DIPHENYLEETHERS (PCDE)
TETRABROMPHENOL A (TBBPA)
ASBESTOS, ANTIMONYTRIOXIDE, DIOXINE

NONE OF THE FOLLOWING SUBSTANCES WILL BE EXPOSED, LEAKED, OR EMITTED DURING TRANSPORTATION, STORAGE OR ANY OPERATION AND ANY TEMPERATURE CONDITION:

CHLORINATED FLUOROHYDROCARBON (FCKW)
ACRYLONITRIDE
STYROL
PHENOL
BENZOL
MERCURY OF GREATER THAN 0.0001 WT% FOR ALKALINE BATTERY
MERCURY OF GREATER THAN 0.0005 WT% FOR OTHER BATTERY
LITHIUM CONTENT OF GREATER THAN 0.5G/BATTERY CELL
CADMIUM, LEAD, AND OTHER HARMFUL HEAVY METAL

AND WILL COMPLY WITH THE REGULATION OF 49 CFR (DOT REGULATION), INTERNATIONAL AIR TRANSPORT ASSOCIATION (IATA), AND DEUCHE FORSCHUNGSGEMEINSCHAFT (DFG) REGARDING CONCENTRATIONS OF EMITTED SUBSTANCES.

THIS PRODUCT DOES NOT CONTAIN MERCURY AND LITHIUM-METAL.

MERCURY CONTENT: N/A
LITHIUM-METAL CONTENT: <0.5G
CADMIUM CONTENT: N/A

IF THE CELLS ARE OPENED THROUGH MISUSE OR DAMAGE, DISCARD IMMEDIATELY. INTERNAL COMPONENTS OF CELL ARE IRRITANTS AND SENSITIZERS.

12. ECOLOGICAL INFORMATION

SOME MATERIALS WITHIN THE CELL ARE BIOACCUMULATIVE. UNDER NORMAL CONDITIONS, THESE MATERIALS ARE CONTAINED AND POSE NO RISK TO PERSONS OR THE SURROUNDING ENVIRONMENT.

13. DISPOSAL CONSIDERATIONS

CALIFORNIA REGULATED DEBRIS:

RCRA WASTE CODE: NONREGULATED

DISPOSE OF ACCORDING TO ALL FEDERAL, STATE, AND LOCAL REGULATIONS.

14. TRANSPORT INFORMATION

SAMSUNG SDI LITHIUM ION BATTERIES ARE CONSIDERED TO BE "RECHARGEABLE BATTERIES" AND MEET THE REQUIREMENTS OF TRANSPORTATION BY THE U.S. DEPARTMENT OF TRANSPORTATION(DOT), INTERNATIONAL CIVIL AVIATION ADMINISTRATION(ICAO), INTERNATIONAL AIR TRANSPORT ASSOCIATION(IATA) SPECIAL PROVISION A45 AND BELONGS TO NON-DANGEROUS GOODS.

15. REGULATORY INFORMATION

OSHA HAZARD COMMUNICATION STANDARD (29 CFR 1910.1200)

- () HAZARDOUS
- (X) NON-HAZARDOUS