


Safety Data Sheet

SDS Format required	Country format:	EU REACH	
Supplier Information: 	Company name:	DAP B.V.	
	Address:	Tussendiepen 4a 9206AD Drachten The Netherlands	
	Tel Number:		
	Fax number:		
	Email:		
	Website:	www.philips.com	
Emergency Response Contact:	Contact:		
	Emergency Number:		
	Times of operation:		
Product name: as on the label Brand / name	Rechargeable Li-ion Battery I0523A 21.6V 2250mAh 48.6Wh		
Synonyms	Lithium-ion Pack, Lithium-ion Battery, Li-ion Pack, Li-ion Battery		
Use / Condition of use:	Lithium-ion batteries NOTE: Hazard statement relates to battery contents. Potential for exposure should not exist unless the battery leaks, is exposed to high temperatures or is mechanically, physically or electrically abused. SDS are intended for use in the workplace ONLY. For domestic-use products, refer to consumer labels.		
UFI number(s) (EU):	N/A		
Ingredients in percentage:	Ingredient Name	CAS Number	Percentage
	Lithium Cobalt Oxide	12190-79-3	49.5%
	Graphite	7782-42-5	16.3%
	SBR	9003-55-8	0.05%
	Lithium hexafluorophosphate	21324-40-3	10.96%
	PVDF	24937-79-9	0.33%
	Nylon	24937-16-4	3.93%
	Copper	7440-50-8	6.96%
	Aluminum	7429-90-5	7.6%
	Nickel	7440-02-0	0.06%
	Carboxymethylcellulose	9000-11-7	0.28%
Polyethylene	9002-88-4	4.03%	

Physical & chemical properties:			
Container type		N/A	
Appearance		Blue, prismatic, Odorless	
Water miscibility/solubility		N/A	
pH		N/A	
Flash point		N/A	
Physical State			
Odour	N/A	Partition coefficient n-octanol / water	N/A
Odour threshold	N/A	Auto-ignition temperature (°C)	N/A
Melting point / freezing point (°C)	N/A	Decomposition temperature (°C)	N/A
Initial boiling point and boiling range (°C)	N/A	Viscosity (cSt)	N/A
Evaporation rate	N/A	Molecular weight (g/mol)	N/A
Flammability	N/A	Taste	N/A
Upper Explosive Limit (%)	N/A	Explosive properties	N/A
Relative density (Water = 1)	N/A	Oxidising properties	N/A
Nominal Voltage	21.6V	Surface Tension (dyn/cm or mN/m)	N/A
Total Energy	48.6Wh	Rated Capacity	2.25Ah
Hazards identification	Health Hazards (Acute and Chronic)		These chemicals are contained in a sealed can. Risk of exposure occurs only if the battery is mechanically or electrically abused. Contact of electrolyte and extruded lithium with skin and eyes should be avoided
	Sign/Symptoms of Exposure		A shorted lithium battery can cause thermal and chemical burns upon contact with the skin. May be a reproductive hazardous.
First Aid Measures	Eye contact		Flush eyes with plenty of water for at least 15 minutes, occasionally lifting the upper and lower eyelids. Get medical aid.
	Skin contact		Remove contaminated clothes and rinse skin with plenty of water of shower for 15 minutes. Get medical aid.
	Inhalation		Remove from exposure and move to fresh air immediately. Use oxygen if available.
	Ingestion		Give at least 2 glasses of milk or water. Induce vomiting unless patient is unconscious. Call a physician.
Fire Fighting Measures	Flash point		N/A
	Auto-Ignition Temperature		N/A
	Extinguishing Media		Dry powder CO2
	Unusual Fire and Explosion Hazards		Cell may vent when subjected to excessive heat-exposing battery contents
	Hazardous combustion Products		Carbon monoxide, carbon dioxide, lithium oxide fumes

Accidental Release Measures	Steps to be taken in case Material is Released or Spilled	<p>If the battery material is released, remove personnel from area until fumes dissipate. Provide maximum ventilation to clear out hazardous gases. Wipe it up with a cloth and dispose of it in a plastic bag and put into a steel can.</p> <p>The preferred response is to leave the area and allow the batteries to cool and vapors to dissipate. Provide maximum ventilation. Avoid skin and eyes contact or inhalation of vapors. Remove spilled liquid with absorbent and incinerate.</p>
	Waste disposal method	It is recommended to discharge the battery to the end, handing in the abandoned batteries to related department unified, dispose of the batteries in accordance with approved local, state and federal requirements. Consult state environmental protection agency and/or federal EPA
Handling and Storage	<p>The batteries should not be opened, destroyed, or incinerate, since they may leak or rupture and release to the environment the ingredients that they contain in the hermetically sealed container.</p> <p>Do not short circuit terminals, or over charge the battery, forced over-discharge, throw to fire. Do not crush or puncture the battery or immerse in liquids.</p>	
	Precautions to be taken in handling and storing	Avoid mechanical or electrical abuse. Storage preferably in cool, dry, and ventilated area, which is subject to little temperature change. Storage at high temperatures should be avoided. Do not place the battery near heating equipment, nor expose to direct sunlight for long periods.
	Other Precautions	Batteries may explode or cause burns, if disassembled, crushed, or exposed to fire or high temperatures. Do not short or install with incorrect polarity
Exposure Controls, Personal Protection	Respiratory Protection	In case of battery venting, provide as much ventilation as possible. Avoid confined areas with venting batteries. Respiratory Protection is not necessary under conditions of normal use.
	Ventilation	Not necessary under conditions of normal use
	Protective Gloves	Not necessary under conditions of normal use
	Other Protective Clothing or Equipment	Not necessary under conditions of normal use Protection, Protective Gloves, Protective Clothing, and safety glass with side shield.
Stability and Reactivity	If leaked, forbidden to contact with strong oxidizers, mineral acids, strong alkalis, halogenated hydrocarbons	
	Stability	Stable
	Conditions to avoid	Heating, mechanical abuse and electrical abuse
	Hazardous Decomposition Products	N/A
	Hazardous Polymerization	N/A
Toxicological Information	<p>Inhalation, skin contact and eye contact are possible when the battery is opened.</p> <p>Exposure to internal contents, the corrosive fumes will be very irritating to skin, eyes and mucous membranes.</p> <p>Overexposure can cause symptoms of non-fibrosis lung injury and membrane irritation</p>	
Ecological Information	<p>When promptly used or disposed the battery does not present environmental hazard.</p> <p>When disposed, keep away from water, rain and snow</p>	
Disposal Considerations	Appropriate method of disposal of substance or preparation	<p>If batteries are still fully charged or only partially discharged, they can be considered a reactive hazardous waste because of significant amount of not creation, or unconsumed lithium remaining in the spent battery. The batteries must be neutralized through an approved secondary treatment facility prior to disposal as a hazardous waste. Recycling of battery can be done in authorized facility, through licensed waste carrier.</p>

Transport Information:	UN3480			
	The battery models listed have a Watt-hour rating of no more than 100Wh. And shipment contains no item listed under IATA DGR Special Provision A154 and meets all requirements under UN Manual of Tests and Criteria Part III, subsection 38.3.			
	No	ITEMS	RESULTS	REMARKS
	1	Altitude simulation	Pass	Test 1 to 5 must be conducted in sequence on the same cell or battery
	2	Thermal test	Pass	
	3	Vibration	Pass	
	4	Shock	Pass	
	5	External short circuit	Pass	
	6	Impact	Pass	
	7	Overcharge	Pass	Only battery do need this test item
	8	Forced discharge	Pass	
Each package is capable of withstanding a 1.2m drop test in any orientation without damage to cells or batteries contained therein, without shifting of the contents so as to allow battery to battery (or cell to cell) contact and without release of contents. Package does not exceed 10kg gross mass.				
Transportation fashion	Air transportation	According to IATA-DGR 65th Edition (Effective 1 January 2024)		
		Packaging complies with the requirements of section IB of Packing Instructions 965 of 65th DGR Manual of IATA Hazard Class: Class 9 For Cargo aircraft only, Forbidden in passenger aircraft, via air shipment SOC no more than 30%		
	Sea transportation	According to IMO IMDG CODE (AMEND 41-22)		
		UN3480, LITHIUM-ION BATTERIES The article is not restricted to IMO IMDG (41-22) Code according to special provision 188. More information concerning shipping, testing, marking and packaging can be obtained Label master at http://www.labelmaster.com . Separate battery when shipping to prevent short-circuiting. They should be packed in strong packaging for support during transport. Take in a cargo of them without falling, dropping and breakage. Prevent collapse of cargo piles and wet by rain		
	Land transportation	According to ADR-2023		
		UN3480, LITHIUM-ION BATTERIES Hazard Class: Not restricted, according to sp188. Package instruction: Strong package, Packaging in accordance to corresponding requirements of sp188. Separate battery when shipping to prevent short-circuiting. They should be packed in strong packaging for support during transport. Take in a cargo of them without falling, dropping and breakage. Prevent collapse of cargo piles and wet by rain.		
Regulatory Information	Law information <<Dangerous Goods Regulation>> <<Recommendations on the Transport of Dangerous Goods Model Regulations>> <<International Maritime Dangerous Goods>> <<Classification and code of dangerous goods>> <<Occupational Safety and Health Act>> (OSHA) <<Toxic Substances Control Act>> (TSCA) <<Consumer Product Safety Act>> (CPSA) <<Federal Environmental Pollution Control Act>> (FEPCA) <<The Oil Pollution Act>> (OPA) <<Superfund Amendments and Reauthorization Act Title III (300/311/312/313)>> (SARA) <<Resource Conservation and Recovery Act>> (RCRA) <<Safety Drinking Water Act>> (CWA) <<California Proposition 65>> <<Code of Federal Regulations>> (CFR) In accordance with all Federal, State and Local law.			

Additional Information

The above information is based on the data of which we are aware and is believed to be correct as of the data hereof. Since this information may be applied under conditions beyond our control and with which may be unfamiliar and since data made available subsequent to the data hereof may suggest modifications of the information, we do not assume any responsibility for the results of its use. This information is furnished upon condition that the person receiving it shall make his own determination of the suitability of the material of his particular purpose