



SECTION 1: IDENTIFICATION

TRADE NAME	ACR Hemilight 3 (3764,3764.1,3769,3769.1)
TYPE	LNK-LJ-03A1, LNK-LJ-03A1W
MANUFACTURERS NAME	XIAMEN LONKAO INDUSTRY & TRADE CO., LTD.
ADDRESS	Xiamen 361009, Fujian, China
TELEPHONE NUMBER	954-981-3333
FAX NUMBER	954-961-4403
E-MAIL	MSDS@ACRARTEX.COM
EMERGENCY NOS.	FOR CHEMICAL EMERGENCY, SPILL, LEAK, FIRE EXPOSURE OR ACCIDENT CALL CHEMTREC DAY OR NIGHT: +86-592-2616123
DISCRIPTION	Lithium powered position-indicating lights for lifejacket are designed to be stored for up to five years before use. The battery cells are hermetically sealed pressurized primary Lithium/Manganese Dioxide and as supplied are electronically protected by PTC and from external environment by a moulded plastic casing. In this state the unites constitute no definable hazard to health. However disassemble, abuse or destruction of the battery cell will expose the contents and the following Health And Safety Hazards.

SECTION 2: INFORMATION OF INGREDIENTS

HAZARDOUS COMPONENTS:

MATERIAL	CAS NUMBER	%OPTIONAL	OSHA/PEL	ACGIH TLV STEL
Lithium Metal	7439-93-2	2.68%	N/A	N/A
Manganese Dioxide	1313-13-9	33.22%	5mg Mn/m3	5mg Mn/m3
Propylene Carbonate	108-32-7	5.67%	N/A	N/A
Dimethoxyethane	110-71-4	4.05%	N/A	N/A
Lithium Perchlorate	7791-03-9	1.0%	N/A	N/A

SECTION 3: HAZARD IDENTIFICATION

Lithium Metal	This is flammable when in contact with water. It reacts violently to product hydrogen and lithium hydroxide. Use only soda ash, sodium chloride or graphite to extinguish flames.
Manganese Dioxide	Poison by intravenous and intratracheal routes moderately toxic by subcutaneous route. Experimental reproductive effects. A powerful oxidiser, flammable by chemical reaction. Must not be heated or rubber in contact with easily oxidizable matter.
Dimethoxyethane	Experimental teratogen. Other experimental reproduction effects readily forms an explosive peroxide. A very dangerous fire hazard when exposed to flame, heat or oxidizers. When heated to decomposition it emits acrid smoke and fumes.
Lithium Perchlorate	Moderately toxic. Skin, eye and mucous membrane irritant an oxidiser which is incompatible with nitromethane acetone hydrogen and oxygen. When heated to decomposition it emits very toxic fumes.

SECTION 4: FIRST AID MEASURES

EYES	Irrigate thoroughly with water for at least 15minutes. Obtain medical attention
INHALATION	Remove from exposure, rest and keep warm. In severe cases, or if exposure has been great. Obtain medical attention.
SKIN	Wash off skin thoroughly with water. Remove contaminated clothing and wash before re-use. Obtain medical attention.
INGESTION	Wash out mouth thoroughly with water and give plenty of water to drink. Obtain medical attention.
FURTHER TREATMENT	All cases of eye contamination, persistent skin irritation and casualties who have swallowed this substance or been affected by breathing its vapours should be seen by a doctor.
EMERGENCY AND FIRST AID PROCEDURES	If cell vents, personnel should be evacuated from contaminated areas. Other materials are either inert or have low hazard associated with their exposure.

SECTION 5: FIRE FIGHTING MEASURES

If cells are directly involved in fire, DO NOT USE SAND, DRY POWDER OR SODA ASH, GRAPHITE, METAL CLASS D EXTINGUISHERS OR A FIRE BLANKET. Copious quantities of water based foam are the only recommended extinguishing media for fires involving cells. If a fire is in an adjacent area and cells are packed in their original containers, the fire can be fought based on fuelling material e.g. paper and plastic products. Avoid fume inhalation.

In the case where significant quantities of Lithium/Manganese Dioxide batteries have been involved in a fire, account must be taken of the possibility that flammable gases might be evolved should water come into contact with the cold battery residues. These gases might include Acetylene, Hydrogen and Cyanide. It is recommended that ventilation should be maximized should this scenario be realized.

SECTION 6: ACCIDENTAL RELEASE MEASURES

Do not breathe vapours or touch liquid with bare hands. If the skin has come into contact with the electrolyte it should be washed thoroughly with water. Earth or sand should be used to absorb the exudation, seal leaking battery and earth in a heavy-duty polythene bag and dispose of as special waste.

SECTION 7: HANDING AND STORAGE

Handle and store in a cool, dry, well-ventilated area, keep out of direct sunlight.

SECTION 8: EXPOSURE CONTROLS/ PERSONAL PROTECTION

HANDLING	Do not short circuit or expose to temperatures above the temperature rating of the battery. Do not recharge, over-discharge, force discharge, immerse, puncture or crush.
STORAGE	Store in a cool place but prevent condensation on cells and batteries. Elevated temperatures can result in shortened battery life and degrade performance. Do not store batteries in high humidity environments for long periods. External corrosion of the Nickle plated can and tags could result in the formation of toxic metal salts. Avoid ingestion, observe personal hygiene wash hand after contact.

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

APPEARANCE	Light in a plastic housing
ODOUR	If leaking, smells of medical ether
STABILITY IN WATER	Product is waterproof.
REACTION WITH WATER	Only if damaged.
FLASH POINT	Not applicable unless individual components exposed.
FLAMMABILITY	Not applicable unless individual components exposed.
RELATIVE DENSITY	Not applicable unless individual components exposed.
SOLUBILITY IN WATER	Not applicable unless individual components exposed.
SOLUBILITY OTHER	Not applicable unless individual components exposed.



SECTION 10: STABILITY AND REACTIVITY

Hazardous material are housed within a hermetically sealed unit, under normal conditions this units is Non-Hazardous.

HAZARDOUS REACTIONS	Lithium metal reacts with water to produce highly flammable gasses.
HAZARDOUS DECOMPOSITION REACTIONS	Toxic fumes and may form peroxides.

SECTION 11: TOXICOLOGICAL INFORMATION

SIGNS & SYMPTOMS	None, unless battery ruptures. In event of exposure to internal contents, corrosive fumes will be very irritating to skin, eyes and mucous membranes. Over exposure can cause symptoms of non-fibrotic lung injury and membrane irritation.
INHALATION	Lung irritant.
SKIN CONTACT	Skin irritant.
EYE CONTACT	Eye irritant.
INGESTION MEDICAL CONDITIONS	Poisoning if swallowed.
GENERALLY AGGRAVATED BY EXPOSURE	In the event of exposure to internal contents, eczema, skin allergies, lung injuries, asthma and other respiratory disorders may occur.

SECTION 12: ECOLOGICAL INFORMATION

MAMMALIAN EFFECTS	None known at present.
ECO-TOXICITY	None known at present.
BIOACCUMULATION POTENTIAL	None known at present.
ENVIRONMENTAL FATE	None known environmental hazards at present.

SECTION 13: DISPOSAL

DISPOSAL	DO NOT INCINERATE or subject cells to temperature in excess of 90°C. Such abuse can result in loss of seal, leakage, and/ or cell explosion. Dispose of in accordance with appropriate local regulations. DO NOT ATTEMPT TO DISMANTLE THIS PRODUCT.
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SECTION 14: TRANSPORT INFORMATION

UN HAZARD CODE	Products are considered non-dangerous goods by International Civil Aviation Organization(ICAO) and International Air Transport Association(IATA DGR 54 edition,2013) because batteries meet all requirements of Packing Instructions(Section II of PI970).
UN NUMBER	3091
UN PROPER SHIPPING NAME	Lithium Metal Batteries Contained in Equipment.
PACKING GROUP	II
LITHIUM CONTENT LNK-LJ-03A1&W	0.27g (\leq 1gram lithium metal cell)
WATT HOUR RATING	2.6wh

SECTION 15: REGULATORY INFORMATION

CLASSIFICATION	Non Hazardous	
HAZARD SYMBOL	N/A	
RISK PHRASES	N/A	
SAFETY PHRASES	L1,D1 C1~C4 Q1~Q2	Keep away from moisture. Keep away from sources of ignition – no smoking. Keep away from combustible material.

SECTION 16: OTHER INFORMATION

	N/A
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The above information is given based on the present state of our knowledge of this product and is, to the best of our knowledge and belief, accurate at the time of publication. No warranty given, either express or implied, with respect to the accuracy, reliability or completeness of the information contained herein and we will assume no liability resulting from its use. The users must satisfy themselves that the information provided is entirely suitable for their particular use.