

Comparison with Lead Acid Battery Powered Caplamps

	Lead Acid Battery Powered Belt Mounted Caplamp		Li-Polymer Battery Powered Cordless Caplamp	
1	TOXIC PROPERTIES			
	Contains toxic and highly corrosive acid.	X	No acids and toxins.	√
	Classified as HAZARDOUS as per Chem Alert criteria.	X	100% Safe – no danger to personnel.	√
	Due to the liquid being encased, contact with liquid is unlikely with normal use.	X	N/a	√
	Contact with eyes and skin and if swallowed or the fumes are inhaled will cause severe damage.	X	N/a	√
	Harmful to the environment with lead, acid and gases.	X	N/a	√
2	FIRE			
	Electric power cord from the battery pack will burn.	X	N/a	√
	Plastic casing to the battery or lamp will burn.	X	N/a	√
	Resultant fumes from burning plastic and battery acid highly toxic.		Small amount of fumes as there is much less plastic.	
3	EXPLOSION			
	Fire-explosion can occur through short circuit of terminals. A cigarette can be lit from the spark.	X	N/a	√
			Equipped with explosion-proof characteristics, auto-protection against overloads voltage, overload current or under-voltage.	
4	WATER RESISTANCE			
	May leak if immersed in water	X	100% Waterproof	√
	Lamp lens and globe get extremely hot. The lens glass may crack if it comes in contact with water	X	No heat on lamp light lens.	√
5	MAINTENANCE			
	Regular water top-up	X	N/a	√
	Globe replacement - one bulb - needs tools to change bulb – time wasted if it fails while underground.	X	LED's have a 30 year lifespan	√
	Electric power cord damage.	X	N/a	√
	Difficult to clean.	X	Very easy to clean.	√
7	POWER REQUIREMENT AND CHARGING			
	Uses large quantities of electricity	X	Large saving in electricity	√
	Recharge on 220V/15 amp plug	X	Recharge 3.7V/2.4Ah. Working current 180Ma	√
			Charging time 6 hours	
	Never overcharge batteries.	X	Battery has no memory, can just be plugged into charging bank.	√
	Charging bank is large and cumbersome.	X	Compact charging bank fits into a small space.	√
8	WORKING HOURS			
	As battery power weakens, so does the emitted light.	X	Light lasts for 12 Hours. Light emitted remains constant.	√
9	STORAGE & TRANSPORT			
	Store in a cool, dry, well-ventilated area. Requires large storage area with a ventilation system.	X	No special storage requirements.	√
	Corrosive. Must not be transported with chemicals, explosives or foodstuffs.	X	There are no special transport requirements or precautions.	√
10	GENERAL			
	Weighs in kilograms	X	Weighs 157 grams.	√
	No protection on lens.	X	Disposable polymer film on lens.	√
	Cannot withstand vibration and shock. Globe filament may break or shake loose.	X	Vibration and shock resistant.	√
	Wear and tear to uniforms. Friction on cloth of uniform causing damage.	X	N/a	√