

Unusual Fire and Explosion Hazards

Golden Power Corporation (HK) Ltd.

Material Safety Data Sheet MSI	Ref.No.:GPMSDS-GL6F22A-2015A				
IDENTITY (As Read on Label and Line	Notice: Blank sp	Notice: Blank spaces are not permitted. If any item is not			
GL6F22A		applicabl	e, or no information	on is available, the space	
ALKALINE BATTERY		must be marked to indicate that.			
Section I					
Manufacturer's Name		Telephone Number			
Golden Power Corporation (H	IK) Ltd.		(852) 3125 2288		
Address (Number, Sheet, City, State, and ZIP Code)		Fax Number	(852) 3125 2000	/ 3125 2001	
Flat C, 20/F., Block 1, Tai Ping Industr	rial Centre,	Date Prepared			
57 Ting Kok Road, Tai Po, N.T., Hong Kong			2 January 2015		
		Signature of Preparer	r (optional)		
Section II – Hazardous Ingredie	nts/Identity	y Information			
Hazardous Components (Specific Chemi			(contents, %/wt)	CAS No.	
Manganese Dioxide	(MnO ₂)	,	25.5 %	1313-13-9	
Zinc	(Zn)		13.0 %	7440-66-6	
Graphite	(C)		1.76 %	7782-42-5	
Potassium Hydroxide	(KOH)		3.2 %	1310-58-3	
Cadmium	(Cd)		< 0.0005 %	7440-43-9	
Mercury	(Hg)		< 0.0001 %	7439-97-6	
Lead	(Pb)		< 0.0005 %	7439-92-1	
Section III – Physical/Chemical Boiling Point	Characteri	stics Specific Gravity (H ₂ G	O=1)		
KOH aqua solution = 140 °C		$MnO_2 = 4.4$, $Zn =$	7.1, KOH = 2.0		
Vapor Pressure (mmHg)		Melting Point			
KOH aqua solution = 3mmHg at 20 °C		MnO ₂ decompose a $Zn = 420$ °C, KOI			
Vapor Density (Air = 1)		Evaporation Rate (Butyl Acetate = 1)			
Solubility in Water KOH – complete		(2 40)111200410 1)			
Appearance and Color					
11	owder, Graph	nite is also a black pow	der, Zinc is a silver m	etal.	
	_	with stimulative order			
Section IV – Fire and Explosion	Hazard Da	ıta			
Flash Point (Method Used)		Flammable Limits	LEL	UEL	
Incombustible		Not A	vailable		
Extinguishing Media: See Special	Fire Fightir	ng Procedure			
Special Fire Fighting Procedure: In case	of fire in an	adjacent area, use wat	er, CO ₂ or dry chemic	cal extinguishers if cells are	
packed in their original containers since use LITH-X (Graphite Base). In this case		• • •	products. For bulk qu	nantities of unpackaged cells	
As with any fire, wear self-contained bre			of hazardous decompo	osition products.	
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Golden Power Corporation (HK) Ltd.

Stability Unstable Conditions to Avoid Do not short circuit, charge or dispose of in fire. Incompatibility (Materials to Avoid)	Section V – R	Reactivity Data						
Incompatibility (Materials to Avoid)	Stability	Unstable		Conditions t	o Avoid I	Oo not sh	short circuit, charge or dispose of in fire.	
Hazardous Decomposition or Byproducts Hazardous May Occur Volumerization Will Not Occur Volumerization Will Not Occur Volumerization Will Not Occur Volumerization Volumerization Will Not Occur Volumerization Volumerization Version Volumerization Version Version		Stable	V				· C 1	
Hazardous Decomposition or Byproducts May Occur Conditions to Avoid Folymerization May Occur Will Not Occur V Section VI — Health Hazard Data Route(s) of Entry. Inhalation? Yes Skin? Yes Ingestion? Yes Health Hazards (Acute and Chronic) These chemicals are contained in a sealed can. Risk of exposure occurs, only if battery is mechanically or electrically abused. The most likely risk is acute exposure when a cell vents KOH is caustic alkali and attack the skin and eyes. Contact of electrolyte with skin and eyes should be avoided. Section VII — Ecological Information Cardnogenicity NTP? Not Available IARC Monographs? Not Available OSHA Regulated? Not Available Signs and Symptoms of Exposure KOH can cause chemical burn upon contact with skin. Medical Conditions An acute exposure will not generally aggravate any medical help. Section VIII — Emergency and First Aid Procedures In case of skin contact with content of battery, flush immediately with water. For eye contact, flush with copious amount of water for 10 minutes. If imitation persists, get medical help. Section X - Precautions for Safe Handling and Use Steps to Be Taken in Case Material is Released or Spilled Wipe out by wet duster. Section XI - Precautions to Be Taken in Handling and Storing Avoid mechanical or electrical abuse. Section XII - Other Precautions Do not short circuit, charge or dispose of in fire. Battery may explode or leak. Section XIII - Control Measures Respiratory Protection (Specify Type) Not Available Not Ava	Incompatibility (Materials to Avoid)		Hazardou	s polymer	ization v	will not occur.	
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	Other Protective	Clothing or Equipme	ent	Not Avail	lable			
	Work / Hygienic	Practices		Not Avail	lable			



Golden Power Corporation (HK) Ltd.

Section XIV – Regulatory Information					
	Not Available				
Section XV – Other Information					
	Not Available				

Section XVI – Transportation Information

Golden Power GL6F22A ALKALINE BATTERY are considered to be "dry cell" batteries and are not listed as dangerous goods under below regulations:

- 1. Batteries, dry fulfills the requirement of U.S. Department of Transportation (DOT), Special Provision 130, i.e. they are offered for transportation in a manner that prevents the dangerous evolution of heat (for example, by the effective insulation of exposed terminals or batteries to be packed in such a way to prevent short circuits or generation of a dangerous quantity of heat.)".
- 2. International Civil Aviation Administration (ICAO) and International Air Transport Association (IATA Dangerous Goods Regulation 56th Edition 2015), Special Provision A123, i.e. "An electrical battery or battery powered device having the potential of dangerous evolutions of heat that is not prepared so as to prevent a short-circuit (e.g. in the case of batteries, by the effective insulation of exposed terminals; or in the case of equipment, by disconnection of the battery and protection of exposed terminals or batteries to be packed in such a way to prevent short circuits or generation of a dangerous quantity of heat.) is forbidden from transportation."
- 3. International Maritime Dangerous Goods Regulations (IMDG) 2012 edition does not regulate these batteries.

Examples of such batteries include alkali-manganese, silver oxide, zinc carbon, nickel metal hydride and nickel-cadmium batteries.